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ORIGINAL ARTICLES

THE RELATION BETWEEN DISEASES OF THE SKIN AND DISEASES OF OTHER ORGANS OF THE BODY.*

ORATION ON MEDICINE.

BY JOHN H. DUNCAN, M. D., ST. LOUIS, MO.

An oration on medicine, even in its restricted sense, is a most exhaustive subject, and to select some topic connected with it, for your consideration, which might be of interest and value, has been a most difficult task. To undertake to consider even casually, the improvements and discoveries in medicine, as distinguished from surgery, obstetrics, gynaecology, etc., during the last few years alone, would require more time than is allotted this paper and had best fall to the duty of some one else.

I also doubt the propriety of it, for I think I would be discrediting your good sense to attempt it. Such papers on individual subjects will be presented to you, during this session, by men more competent than myself and who take special interest in such matters.

Shall I occupy the time on medical education? Emphatically, *no*. For thirty-three years, to my knowledge, you have had your patience taxed annually on this subject, by men finding fault with the methods of conducting our schools, and at the same time offering no suggestions of value for their betterment. There is certainly a limitation to repetition and to your patience on this subject. I will, however, in passing, depart from the annual custom of abusing our schools and congratulate the state of Missouri on the great improvement in this line during the last twenty years, and especially during the last ten years.

Shall I talk to you this evening on contributions to literature, art and business, by members of our profession? Such an article would be, to say the least of it, interesting to some; but would it be practical, or would it meet the object of this appointment? I am frank to say that I am proud to know that in reviewing history I find many men, eminent in our profession, who stand high in the world of literature, patriotism and business.

*Read at the Fifty-first Annual Meeting, Springfield, May 19, 1908.

The busy, active investigator or practitioner of medicine needs a rest, and a "change of work is the very best recreation." Abject idleness is repugnant and time with such a man is golden, for "he gathers pearls from all shores."

Was Dr. Oliver Wendell Holmes less a renowned anatomist, because he was a poet and essayist?

Was Dr. Benjamin Rush less one of the most eminent medical men of his day, because he was a patriot, took interest in his country's freedom, and signed the Declaration of Independence?

Is Dr. S. Weir Mitchell of to-day, less an authority on neurology, because he is poet and novelist? Such examples of medical men, participating in extraneous subjects, could be cited indefinitely. In 1897 in my annual address as president of this body, I made the following statements, which after eleven years, I see no reason for retracting: "I do not think it detracts from a man's professional usefulness for it to be known that he has a knowledge of something besides medicine. I do not think it detracts from his ability to pursue scientific investigations, for him to rest his brain, by occasionally thinking of affairs of state, literature and business. I do not believe that the medical man who confines himself to medicine, or to one branch of it, and who shuts himself in from the world, and from the consideration in moderation of its duties, is as successful a practitioner, as successful an investigator, or as successful in business, as the man who is broader in his views. I believe that the medical man who adds patriotism, literary and business qualifications to his professional life is a better doctor, a better citizen, and of more value to his locality than the recluse, who prides himself on knowing nothing of affairs.

While remarks bearing on this subject might be interesting to some, I doubt their general acceptance on an occasion of this kind, and consequently, I had to look farther for my text."

Since writing the above eleven years ago, I have noticed an increased tendency for men of our profession, to take more interest in public affairs, and I am happy to see from our daily papers, that this year some of the prominent men of this Association, including our worthy president, have been solicited and have agreed to accept positions of honor and trust, outside of medicine. This is a good omen for the profession and this commonwealth.

My work for twenty-five years, both as teacher and practitioner of medicine, has been devoted to dermatology, and having been, previous to that time, a general practitioner myself, in active country work, and knowing from experience the great importance of a knowledge of these diseases to the man in general medicine, I have selected for your consideration, for a very short time, I promise you, the relation between diseases of the skin and diseases of other organs of the body. And first, I wish to correct a most common and erroneous opinion of the profession, that diseases of the skin are more difficult to differentiate, than

are those of other organs of the body. Such a view has been held by medical men for ages, and it is not true. Why should it be so? A pathologic condition of the brain, lungs, liver, kidneys, and many other organs of the body, must be determined largely by symptoms, which are ofttimes most obscure, and, to say the least, by the most scientific and painstaking investigations leave occasionally a doubt as to the real character of the trouble, while in diseases of the skin the eruption is seen and felt, its nature easily noted, and changes in its appearance from day to day observed. Dermatologist or general practitioner can see the nature of the eruption, whether or not it is an inflammation, an hypertrophy, an atrophy, a new growth, etc., etc., though he may not be able to give it a name, and the lesions of no organ of the body are so easily applicable for microscopic study for finer differentiation. The man examining a skin eruption, certainly has advantages for a correct opinion by sight and touch, that the internal medicine men and surgeons have not. Then again, since the time of Hebra of Vienna, there has been a fairly good classification of skin diseases upon largely a pathologic basis, and this assists very much in diagnosis.

No, the trouble has been that the man preparing himself for medicine has neglected skin diseases because he considered them of so little importance and accompanied, as a rule, by no serious consequences to his patient. And yet, you general practitioners here this evening know too well that you feel every day the need of a knowledge of diseases of the skin to an extent greater than that of any of the other specialties. Some one has jokingly said, that dermatology embraces not only diseases of the skin, but all that the skin contains. I hope to show that there is more truth than fiction in that expression, especially in so far as etiology and therapy are concerned.

Specialists are accused of taking a narrow view of medicine and making everything conform to their work, and I am fearful it is too often true; but I believe the dermatologist, more than anyone else, realizes the close relation between his work and general medicine, and the great importance of his having an intimate knowledge of the latter. And as said above, as the changes on the skin can be seen and felt, there is no reason why the well versed general pathologist cannot recognize the skin changes, and while a name for it is most assuredly advisable, it is of far more importance to see and know what the change is, without a name, than to stumble on to a name without recognizing the change. I am happy to state that the medical students of to-day are appreciating the importance of this branch of medicine, in conjunction with their general work, and seem to take an interest in it not known when I was a student at college. The intimate anatomical connection between this organ and all other organs of the body is such, and the etiologic bearing of the one to the other is so close, that the thorough internal medicine man, who has a fair knowledge of diseases of the skin, is a better dermatologic therapeutist, than the most scientific skin

specialist who knows very little, if anything, of internal medicine. The skin is simply the envelope in which we are, and after it has surrounded the body as the external integument, enters it at the various openings and then becomes the mucous membrane or internal integument.

That my dermatological colleagues may not think I am making light of the importance of skin diseases as a special study, let me say I am fully convinced that dermatology is nearer a science than any other branch of medicine. It is a great and distinct study per se, but that changes in the skin structure depend largely upon its relation to distant and internal organs there can be no doubt. It is one of the largest organs of the body and of great value in the economy. Its structure is complex, and it has more distinct functions than any one organ. Thus, the skin is a special study, a most beautiful one, and easy of investigation, owing to its situation. It contains most all the elements found in other organs, as nerves, blood vessels, lymphatics, muscles, etc., etc., and these are subject to the same pathologic changes they would be, if situated some where else. The accuracy with which changes in the skin lesions can be studied from day to day, is very advantageous to the pathologist. The dermatologist can study in his laboratory, the peculiarities of the papule, the vesicle, the pustule, the tubercle, with his microscope; he can make cultures and produce the same disease in animals by inoculating them with the vaccine obtained, and thus get a minute insight into the abnormal condition; but if his knowledge of the cutaneous disease ceases at this point he is lost as far as therapy is concerned. In short, the relation between the skin manifestation and pathologic conditions affecting distant organs is so close that he must recognize that connection if he expects successfully to combat the disease and not simply palliate it by local application. The exceptions, of course, are principally the parasitic diseases, which are comparatively rare. The well grounded man, then, in general medicine, while he cannot be a general specialist, can by proper application become qualified to manage the majority of skin diseases.

To illustrate, food in the alimentary canal may undergo a fermentation and the toxins there formed, by autoinfection, manifest on the skin the various erythemas. What matters it practically to you what that particular erythema may be named, and who is more qualified than the thorough general practitioner, with a fair knowledge of skin diseases, to ferret out the cause and apply the proper remedy.

Again, that most annoying disease, eczema, which confronts all of us daily, cannot be managed simply from its name, but each individual case must be treated with reference to its own cause and character. The causes of eczema are numerous, from a simple local irritation to an organic or functional affection of most any organ of the body. Who is more competent than the well grounded general practitioner, with a good insight into skin diseases, to work out the causes in such cases and suggest a scientific, radical treatment.

I insist then, as skin diseases are so inseparably connected with diseases of other parts of the body, that the general practitioner owes it to himself and his patients that he cultivate this specialty. Of all the special branches it is one of the youngest and the least studied by the general medical man. Up to about sixty years ago it was not distinctly demarked from medicine in general, but about that time the elder Hebra of Vienna advanced it as a distinct study and he became known as the father of modern dermatology. Vienna for years was the headquarters for dermatological teaching, but in time the other noted medical centers of Europe became prominent in this line. Only comparatively recently has America taken a position alongside of European centers in the investigations in this branch of medicine. To-day we can boast, however, of a number of men who are recognized as authority the world over. But especially was I proud of my own state and city, and this Association, when the late eminent dermatologist Lassar, told me personally in Berlin, not long since, that one of the few men in America who had helped to make American dermatology what it is was Dr. W. A. Hardaway of St. Louis.

If these disconnected remarks will be the cause of the men now practicing medicine impressing upon their students the importance of a knowledge of diseases of the skin in their general work, I will feel fully repaid for my feeble efforts on this occasion.

THE SPHERE OF MODERN SURGERY IN THE RELIEF OF STOMACH DISORDERS.*

ORATION ON SURGERY.

BY HERMAN E. PEARSE, M. D., KANSAS CITY, MO.

It is of the greatest importance that further light be thrown upon the treatment and relief of stomach pain, and of chronic vomiting, and of the various types of indigestion and so-called dyspepsia. The activity of research along this line at this time renders it timely that this section of our Association contribute whatever it can to the condition underlying these phenomena. Well did the poet Meredith express the high order of importance to mankind of the proper preparation and presentation of food, and of correct gastric and intestinal digestion, when he exclaimed:

"O hour of all hours, the most bless'd upon earth,
Blessed hour of our dinner!
The land of his birth;
The face of his first love; the bills that he owes;
The twaddle of friends and the venom of foes;
The sermon he heard when to church he last went;
The money he borrow'd, the money he spent;—
All of these things, a man, I believe, may forget,
And not be the worse for forgetting; but yet
Never, never, oh never! earth's luckiest sinner
Hath unpunish'd forgotten the hour of his dinner!
Indigestion, that conscience of every bad stomach,
Shall relentlessly gnaw and pursue him with some ache
Or some pain; and trouble, remorseless, his best ease,
As the Furies once troubled the sleep of Orestes.
We may live without poetry, music and art,
We may live without conscience, and live without heart;
We may live without friends; we may live without books;
But civilized man cannot live without cooks.
He may live without books,—what is knowledge but grieving?
He may live without hope,—what is hope but deceiving?
He may live without love,—what is passion but pining?
But where is the man that can live without dining?"

We have made enormous advances in the science and economics of life but the fundamental principles are still the same—the male human brings to the home food in the rough, the female human prepares it for the nutrition of both. Lack of efficiency on the part of either is productive of discomfort, discontent, failure of happy home life. These facts are traditional and fundamental and universally true. How pathetic then to the physician to see the man or woman who has fulfilled the primitive conditions,—has prepared for the home the food required to sustain life, and has, perhaps, added all the refinements that go to complete the surroundings of the modern civilized family—how pathetic, I say, is it when the eating of that food required to sus-

*Read at the Fifty-first Annual Meeting, Springfield, May, 1908.

tain life brings, not pleasure and contented satisfaction, but discomfort and pain, and that pain without relief or end. The pangs of hunger are truly terrible and to relieve them man will strive to the uttermost bounds of his strength, but when the poor victim must receive this food into a stomach afflicted with ulcer or dilation, to the pangs of hunger are added the torment of pain; grinding, stabbing pain that persists, in spite of efforts to relieve it, until the food substance is passed, sour and irritating, into a rebellious intestine, or rejected by vomiting. How sad is the lot of such a one, condemned to waste slowly under the horrors of malnutrition until the ulcer heals or death ends the wearying cycles of eating; and trying to live, followed by hurting and paining, and wishing to die. Well did the great thinker and preacher, Henry Ward Beecher, affirm that a man could hardly be a Christian for more than a few hours at a time if he had dyspepsia. Few there are I fear who would care to try.

The functions of the stomach are said to be, first, motor, and second, secretory. The former is so much the more important that we can practically disregard the latter. The ills that mankind suffer from indigestion of food arise from the stasis of the contents of the stomach. The stomach in such cases retains the food until the process of fermentation, or even putrefaction, sets up,—retains it thus, instead of passing it quickly and regularly into the intestines, in proper amounts and of a proper consistency, for solvent action by the intestinal juices. We have come to know that the most important function of the stomach is, storage,—to receive the food at such time as the individual can procure and masticate it, and to pass it on to the bowel at such a rate that the intestines can digest it. Stomach digestion can be largely dispensed with if intestinal digestion be perfect, as is demonstrated in the persons whose stomachs have been removed for disease or in gastroenterostomy when the operation has been performed near the cardia.

Now comes the time in this address to make clear the symptoms, and the order of their appearance, in these lesions that produce stasis of stomach contents and painful stomach symptoms by their presence, *i. e.*: 1. Ulcer of the stomach. 2. Ulcer of the duodenum. 3. Cancer. 4. Cicatrix or scar from ulcer. It is in these conditions that surgical interference saves life and cures the patient. It is here our most valuable work can be done. The first symptom to arrest attention of the clinician is

Pain. The pain of ulcer is characterized by its persistence. It is usually sharply localized, and tends to "run through" the patient and appear at the back under the eleventh or twelfth rib at the left of the spine. The pain comes suddenly, but once present it persists, with more or less variation, until the ulcer heals or is removed. It may be caused by food, may appear just as the food is taken or in one, two, three hours, according to the location of the ulcer. But the point of value is that it always makes its appearance at the same relative time under the

same conditions. The pain of ulcer of the stomach and the duodenum are alike in this respect, they persist until food has passed beyond the ulcer, or been rejected by vomiting and the stomach walls are at rest. The pain of ulcer is the factor that drives the patient to ruin. It is probable that most cases of dyspepsia associated with "neuralgia of the stomach" are cases of gastric ulcer of a chronic type, that need the light of an exploratory operation to bring to view their true character.

Acidity. Next we have acidity. The acidity that accompanies these cases is marked, and manifested by the full gnawing pain or by pyrosis belching and vomiting. It is of value to ascertain the nature of the acid that causes the acidity, as lactic acid is present in cancer, butyric acid is produced by prolonged fermentation from benign stenosis, while the cases of ulcer are characterized by the excessive secretion of hydrochloric acid by the stomach cells themselves. This excessive flow of hydrochloric acid may not be present and all hydrochloric acid may be absent from a stomach that is afflicted with ulcer, so that it is not a positive sign. The normal acidity of the gastric contents one and one-half hours after meals, is one and one-half to two parts to the thousand. In ulcer cases it often reaches three and one-half to four parts per thousand, and then becomes a serious irritant to the nerves of the stomach walls and to the intestine below it, if it ever reaches the intestine. While an accompaniment of ulcer it may be a cause of it. Given hyperchlorhydria, with the above given symptoms of pain and with blood, either evident or occult, and the diagnosis of ulcer may be said to be established. The nausea is not typical but may go on to vomiting, when the sour irritating mass is expelled. If the ulcer causes no obstruction to the pylorus vomiting is rare.

Hemorrhage may appear in the vomited material, or in the passages from the bowels, and varies in quantity from a microscopical amount to a fatal bleeding. It is present in fully one-half the cases, and results from an erosion of the epithelial and protective coverings of the vascular area of the stomach. When there are but a few drops of blood lost each day, the bleeding is said to be occult and can be found by microscopic examination or by the rules of Weber's test. If the erosion reach the walls of a vessel of larger size, the consequences may be more serious. Hemorrhage from such a source is sudden and severe, often fatal in a few hours or days. If not too large a vessel is opened the sudden bleeding may be checked by a good quantity of very hot water—115 to 120 degrees—best given through the stomach tube, and after removal repeated again and again.

Stagnation of the contents of the stomach occurs: First, when the pyloric orifice closes in a spasm; second, when it is mechanically interfered with. The first condition is caused by the presence of food over a sore area in the stomach, or by such reflex spasm as may be set up by a sore area anywhere along the line of the intestinal tube. This will be taken up more fully in following paragraphs.

It is this condition that gives rise to the greater part of the symptoms of which dyspeptics complain, and we should be patient, persistent and accurate in sifting down the cause of stagnation when a patient complains of fullness after taking food, of pain and gastric distress after a meal, and when we find that the stomach is not empty in five to seven hours after a full, hearty meal of mixed food.

Upon these four points we make our diagnosis: Pain and tenderness, acidity, hemorrhage, nausea and evidence of stasis. All being present, the patient surely has ulcer; and one being present he may have ulcer.

Ulcer may not be possible of diagnosis. Cancer in its incipiency never is possible of diagnosis except by exploratory incision and direct inspection.

Cancer of the stomach is an insidious disease; suffice it to say that I know of no means of diagnosis that will detect early cancer in time for its removal and cure, save and except one and one only—and I offer to you this one in the earnest hope that it will be used often. When early signs of dyspepsia do not yield to a cathartic, a modified diet, and suitable medicines in a few days' time; when the dyspepsia threatens to become a chronic one, place your patient upon the operating table in the hands of a competent surgeon for diagnostic or exploratory laparotomy. If cancer be developing, this is the only time and the only way within the knowledge of medicine to-day, that the cancer can be attacked with hope of cure. A few months, and all operative procedures are for relief only, and the day of cure has fled forever.

Dr. Joseph C. Bloodgood, of Baltimore, was selected by the editors of the *"International Clinics"* to write upon the world's progress in surgery. Hear now, what this careful observer writes in 1908 as the present position of the medical and surgical world in the diagnosis of cancer of the stomach in its operative stage.

"The problem of diagnosis still offers much for investigation. At the present time is seems impossible, except in a general way, to select the smaller group for which surgical intervention is indicated. The majority of patients suffering with so-called gastric symptoms have no organic lesion. The symptoms are usually due to disturbance of the nervous mechanism and are part of the complex picture of some form of a neurosis. In others, the symptoms referred to the stomach are due to organic lesions of viscera near, or remote from, the stomach; for example, cardiac, nephritic and hepatic. In some organic lesions of the stomach, for example, simple or acute gastric ulcer, medical treatment should first be employed. In carcinoma early operation with complete excision is the only hope. In pyloric obstruction surgery is the only means of treatment.

Now that we know so much about what surgical intervention can do, and now that we have established a technique with a mortality which hardly needs consideration in the decision as to operation, the question is, how to select the cases. From my own experience and from a very careful study of the literature, I cannot but conclude that at the present time we must acknowledge with our medical colleagues, or perhaps force

them to acknowledge with us, that exploratory laparotomy is the only accurate method.

Cancer of the stomach has been cured, but the relative number of cases is small. In every patient at the cancer age, with gastric symptoms, the possibility of a malignant lesion should first receive attention and, unless this can be absolutely excluded, the stomach be inspected. In the operable stage, with few exceptions, cancer of the stomach exhibits no differential signs."*

Surgery has done much during the last ten years to relieve gastric insufficiency. The internist has so few opportunities for observing the actual condition antemortem that he has been outstripped by the surgeon, who sees the conditions in the living patient upon the operating table when he opens the abdomen, when he inspects the stomach and the region lying about the pyloric opening, and sees for himself what is needed and what may be done for relief. As the surgical achievements in gynecology have given us the pathology of uterine and ovarian disease, so is surgical operative work in the upper abdomen giving us a sure foundation for the study and treatment of gastric disease. The operation is often exploratory and, when so, is devoid of danger. May I repeat this, for it is here the greatest value to the profession must come in the next few years—from the exploratory examination—when the physician having in hand the case history and results of medical treatment, joins hands with the surgeon and, without risk to the patient, clears up the diagnosis and makes comparatively certain the cure of the case, when cure is possible, either by medicine or surgery as the conditions indicate. Exploratory opening of the abdomen is without danger. The certainty of diagnosis and consequent directness of treatment richly repays the patient for the discomfort of the exploration. Upon observing a series of such exploratory operations the physician gains a new impetus in the study of painful stomach affections and a clearer insight into the needs of the case.

While it is undoubtedly true that there are psychical, or so-called nervous or neurotic, conditions in which a stomach of normal structure fails of its function, by reason only of lack of correct nerve control, and while a majority of the patients suffering from stomach symptoms have no organic lesion, it is not the less true that many cases of stomach pain and indigestion and nausea and vomiting and failure of function, that have neither ulcer or cancer nor scar tissue as a basis for their existence, have a cause that may be seen and felt and studied and removed and by surgical operation the patient cured. They may have adhesions from perforation, or from inflammations of the peritoneum over the gall bladder and the under surface of the liver; or they suffer directly from the inhibition of an inflamed appendix.

Let me here call attention to the anatomical arrangement of innervation that obtains in the stomach and intestines. I hope by this means to make clear how an inflamed appendix, or an ulcerated colon,

*International Clinic, Vol. I, page 283.

or a gall bladder irritated by calculi, may cause such an inhibitive influence as to block the passage of food from the stomach at the proper time. In the development of the fetus there is one bud for the foregut, one for the midgut and one for the hindgut. Each of these centers of development carries forward its nerve supply in its growth and development, the consequence being that reflex conditions are established in the stomach when inflammation exists in the appendix, the liver, the gall bladder, or ducts, or in the pancreas. Trouble in any of these locations is apt to be followed by spasmodic closure of the pylorus and the symptoms of pyloric stenosis or pyloric insufficiency follow. If the operation of gastrotomy is done the operator is surprised to find a normal stomach; he must look further for the cause of the condition, and it is more than likely that he will find a spasmodic closure of the pylorus from irritative or inflammatory lesions in the appendages to the digestive apparatus, among which chronic appendicitis holds an important place.

In the *Annals of Surgery* of July, 1907, appears an article by Dr. William J. Mayo that stands without equal for brevity and completeness, and I cannot do otherwise than to quote a few lines from this classic production and recommend its entire study to any one interested. He tells us that the foregut gives by its development during growth the "posterior wall of the pharynx, the whole of the esophagus, the stomach (and duodenum to a point just below the common duct, the liver and pancreas being off-shoots from that part of the foregut which is to become the upper duodenum. All of these organs are concerned in the preparation of food for absorption but do not themselves absorb. Looked at from this standpoint, we have the explanation why the first four inches of the duodenum is associated, both in its physiology and pathology, with the stomach. The duodenum below the common duct, the jejunum, ileum, cecum, and the colon to the middle of the transverse if not to splenic flexure, is derived from the midgut and is concerned in absorption.

Kolling, Cannon and others have demonstrated beyond a doubt that the control of the pyloric apparatus is largely vested in the duodenum. We have reason to believe that to a certain extent this control can be exercised by all of the just named derivations of the midgut."

Dr. Mayo in making this assertion is well sustained by clinical evidence. In fact, the statement is founded upon a most extensive clinical experience, as we all know. We can thus readily understand that if the duodenum, the liver, the entire small intestines, the appendix and a part at least of the colon, can inhibit and control the pyloric outlet of the stomach, disease in any one of them may cause such an array of gastric symptoms that the stomach may appear to be the storm center and the real cause,—cholecystitis or an appendicitis be overlooked until found by exploratory incision. Thus it is quite common in hospital practice to find cases of chronic dyspepsia with vomiting cured entirely by an operation upon the appendix. A few years ago a very prominent sur-

geon of Kansas City died from prolonged vomiting and inanition after a year's illness, and autopsy showed a gall bladder irritated by an accumulated mass of gall stones, the presence of which was never even suspected by his attending physicians.

Speaking of this same condition Dr. Mayo says, in the article referred to, "we have seen most marked pyloric spasm giving definite signs and symptoms of supposed mucous ulcer, and upon exploration have found gallstones, or appendicitis, or tuberculosis of the cecum. On all of these occasions the real seat of the disease was obscured by the stomach symptoms occasioned by the irregular pylorospasm. These experiences have been so numerous that we look upon pyloric spasm as an indication of an irritation in some part of the intestinal canal which causes an irregular attempt to close the pylorus and thus prevent food from entering the disturbed area. It can be aptly compared to the miner's sluice canal, the sluice gate being controlled by a pulley. Upon necessity for canal repairs the gate is closed, the disturbance appears at the top where the water is prevented from entering the canal."

So here we have two great classes of disorders of the digestive function, both curable by surgical operation. The one an array of diseases of the gastric structure itself, the other reflected, so to speak, from other organs. Of the gastric neuroses, so-called, I shall not speak further than to say that operation should cease when it finds a normal abdomen insofar as its visible anatomy is concerned. The elusive types of disease that are founded on changes in the central nervous system must be treated by attention to that center and, so far as the author of this article knows, surgery offers assistance in this condition only by accurately determining it by exploratory incision. Once the condition is established, the patient's mind is duly impressed and the case usually progresses to a cure in the hands of the physician. I therefore commend the person to the general practitioner to whose kind attention these few pages are directed and in whose good judgment and honest purpose and ability I have the deepest trust.

The ulcer cases should be attacked surgically, either by excision or by a gastroenterostomy, according to the case.

The cicatricial contractions should be attacked and cured surgically by pyloroplasty or by a gastroenterostomy.

The duodenal ulcers should be attacked and cured surgically by gastroenterostomy or by excision, according to location.

The cancer cases should be attacked surgically and the diseased area removed, if possible to hope for a cure; if such is impossible, from the great advance made by the disease, a gastroenterostomy relieves pain and prolongs life.

This completes the list of purely gastric or "direct" conditions. As to the reflex causes of symptoms quite similar, we should excise the inflamed appendices, remove the gall stones, excise the bowel ulcers, and relieve the adhesions, and give the benefit to our patients of surgical skill and lessen the number of chronic dyspeptics that now haunt our medical brethren. Up to the margin of neuroses the field is surgical and the responsibilities are ours.

STRICTURE OF THE ŒSOPHAGUS.*

BY C. E. FULTON, M. D., SPRINGFIELD, MO.

Cicatricial stricture of the œsophagus of such degree as to interfere with swallowing may not invariably follow every minor lesion of this canal, but when it does occur it is the result of an ulceration involving the mucous membrane and submucous tissues. Its etiology therefore resolves itself into the etiology of ulceration of the œsophagus.

The ingestion of escharotics, purposely or accidentally, is the cause of nearly all cases. The constantly increasing number of reports of cases of ulceration of the œsophagus occurring in typhoid fever makes it a factor to be taken into account. Four years ago Dr. Thompson, Professor of Surgery in the University of Texas, published a review of nine cases from this cause, which were all he had been able to find reported in medical literature. To these he added reports of three cases that had come under his own observation. I do not know how thoroughly he had searched the literature, but since that time several cases have been reported in the same periodical in which his paper was published (*Annals of Surgery*, May, 1904). Although this is a rare sequel of typhoid, the fact of its occurrence needs emphasizing, and for that reason, I will, at the close of this paper, report the only case of the kind that I have seen.

When one takes into account the comparative frequency of sores on other mucous membranes, and the exposed position of the œsophagus, he cannot help wondering that it is not more frequently the seat of lesions.

It does not appear that the swallowing of hot fluids or solids often leads to the development of stricture, and yet food is sometimes swallowed for the very reason that it is too hot to hold in the mouth, and in the presence of others it would be embarrassing to eject it. The gullet, moving it slowly as it does, must undoubtedly suffer greatly from the effects of heat. Likewise must it suffer from the first contact with the many "hot and rebellious liquors," the escharotic properties of which it to some extent neutralizes before they reach the stomach.

The symptoms of stricture are few and point unerringly to its presence. They are dysphagia with emaciation and debility, varying with the completeness of the obstruction. Regurgitation of food, or fluid of alkaline reaction, occurs at once if the obstruction is high up; in three or four hours if it is low down, and the œsophagus above the stricture is dilated. (Butler.) Auscultation to determine the presence and locality of the stricture may be practiced, but is of little use as compared with the positive knowledge gained by the use of the olive tipped bougie.

While it is not difficult from the symptoms and soundings to de-

*Read in the Surgical Section, Fifty-first Annual Meeting, Springfield, May, 1908.

termine the presence of stenosis, treatment cannot be begun until its cause is known. In spasmodic stricture the bougie will only be momentarily arrested in its passage, and usually once passing it relieves the symptoms permanently.

Cancer of the œsophagus causing obstruction can be inferred from the excessive pain, the age of the patient usually over forty, and the absence of a history of anything that would have caused ulceration.

Pressure stricture is to be eliminated by careful examination for thoracic aneurism, or any tumor or abscess in the course of the œsophagus.

Stricture from gumma should be thought of and the history relative to syphilis carefully inquired into, and if good reason for it is found, specific treatment should be instituted.

The cicatricial stricture can be diagnosed with reasonable certainty from the history alone.

The modes of treatment that have been, or are now being used, are very similar to those of treating urethral stricture, viz., gradual dilatation, divulsion and division; sometimes singly, sometimes combined. As in the urethra, gradual dilatation, where applicable, is to be preferred. This is best accomplished with conical pointed bougies. Bulbous sounds are of little use except for diagnosis. It is almost impossible to cause a bulb to lie in the grasp of a small stricture. It may be brought without difficulty to the proximal margin, and may be pushed to the distal side, but is only with great difficulty held in the contracted segment. It is not easy to secure with them the absorption produced by continued, gentle pressure. (Eastman.)

The beginning of treatment by gradual dilatation of strictures of very small caliber is carried out by the passage of specially constructed filiform bougies; and in the hands of an expert is often successful, but the difficulties must necessarily be much greater than in urethral stricture.

Divulsion is not in favor with the majority of authorities, but is strongly advocated by an Italian surgeon in cases where a filiform is passed with great difficulty. He has devised an instrument, something on the principle of the Otis dilating urethrotome, which is attached to a filiform and made to follow it through the stricture when it is opened by turning a screw and sufficient divulsion made to allow of gradual dilatation afterwards with ordinary œsophageal sounds. (Allesandri.)

Division of strictures by any of the œsophagotomes in use, either direct or retrograde, is considered dangerous by many. Very few speak highly of its results.

The treatment by tubage as advocated by Symonds is more applicable to cancerous strictures as a palliative measure. The relief of impassable strictures by gastrostomy, and the treatment by retrograde dilatation, and the string method of Abbe, will be referred to in the following case which I will now report:

A farmer's son, sixteen years of age, was stricken with typhoid in July, 1906, from which, after a severe illness, he recovered in September.

During this sickness he complained of a great deal of pain under the sternum. When he had so far recovered as to begin to take solid food, he found such difficulty in swallowing that he was obliged to remain on liquid or semi-solid diet. This dysphagia increased rapidly in severity until it reached the point, in October or November, that at intervals, he could not even swallow fluids. Consultation was called after the family doctor failed to introduce a catheter and numerous unsuccessful attempts were made to pass sounds, from filiform size up. In fact this treatment of trying and failing to pass instruments was kept up regularly every day from about the middle of November to the fifteenth day of December. During this time the boy succeeded in swallowing enough milk, by keeping constantly at it, to keep him alive, but he became very weak and emaciated, and on the last date mentioned, he again failed to swallow any liquids.

Operative interference, which had been declined three weeks before, was now accepted, as it too often is, as a last resort. On December 17th I was called to treat him, and on December 18th performed gastrostomy for the purpose of introducing food into the stomach and with a hope of being able to dilate the stricture from below when the patient gained sufficient strength to bear it. For ten days he was nourished through the gastric opening and gained considerable strength, and by that time he began swallowing small quantities of water. He was then given a shotted thread to swallow, but the shot, a number six, stopped at the stricture. More thread was "played out," so to speak, and in a few hours he announced that he could feel that it had gone down through the stricture. His stomach was filled with normal salt solution; he was raised to a sitting posture, and with the escape of the fluid, a loop of the thread came out the fistula. A larger thread was attached to the mouth end of this one, and drawn through, and to this a large braided silk cord was attached and drawn down and through in a similar manner, to be used as a guide to future attempts at dilating.

The stricture was found to be an annular one nine inches from the incisor teeth. Small rubber tubing was attached and drawn upward through the stricture after the manner advised by Ochsner and left from two to four hours at a time.

After three days of this treatment, a No. 23 F. bougie was drawn down tightly into the stricture, and Abbe's string-saw used until the bougie was drawn entirely through. Two days later a No. 28 F. bougie was used and the string applied in the same way; the bougie being drawn down and out through the stomach wound. This was done without a general anesthetic, and he suffered severely from shock for a few hours after it. If I were to do it again I should use chloroform.

After this the 28 F. bougie was used in the ordinary way, once daily, with intention of increasing the size every third or fourth day, and he was eating and swallowing all kinds of food, after special preparation, such as mincing of meats and vegetables.

On the evening of the seventh of January he became afflicted with an acute delirium or mania. He thought he was going to be burned alive, and wanted to get away from the hospital. This became so violent that the guide string was removed for fear he would get hold of it and injure himself by hard pulling. The bougie was passed in the usual manner every day, but as his violence increased this became so difficult and caused him to make such desperate struggles that I yielded to the importunities of his parents to let the stricture alone till his reason was restored. I made a mistake in not replacing the guide string and keeping his hands tied if his parents would have allowed it.

After three weeks it was thought that he was in a sufficiently composed state of mind to allow bougies to be passed, but by that time he was swallowing with great difficulty, and I could not succeed in passing even a filiform. He was persuaded to attempt to swallow another shotted thread, but not succeeding quickly he grew stubborn and refused further coöperation in the treatment. Fearing his mental state would again become unbalanced if force were resorted to, I allowed him to go home provided with means of feeding through the gastric fistula.

He has lived ever since on milk and eggs; has regained his normal weight and reason; is apparently well and strong. He will not consent to any attempt to dilate the stricture from below, nor will he consider any advice as to a variation in diet. He says "he is doing well on milk and eggs and is content to let well enough alone."

Barring errors that are easier seen in retrospect than in prospect, I consider the principles guiding the treatment of this case to be the best we have for impassable stricture. I recognize the difficulty of defining impassable stricture. It would require as many shades of meaning as there are degrees of skill inherent in different doctors.

From the individual standpoint one might say that an impassable stricture is one that is impassable for him after using a fair degree of patience and not more time than a rapidly starving patient can afford to lose. Then, if he fails, he should either turn the patient over to some one who he thinks will be more likely to succeed, or perform gastrostomy and nourish the patient through the artificial mouth till the stricture can be relieved.

DISCUSSION.

Dr. William A. Shelton, Kansas City: Those who have had experience with stenosis of the œsophagus realize the difficulties of the treatment of this condition, and we ought to congratulate the doctor even if his patient did not take his advice. He took this patient in an extreme condition, and succeeded in passing something and in nourishing him and bringing him back to a normal condition. In these cases, where it seems impossible to pass a bougie or anything,—a shot, or a string from above,—it may often be passed from below. This was shown by Abbe, and has been done by many others who have written on the subject.

Dr. John D. Seba, Bland: Stenosis of the œsophagus is a very difficult condition to deal with, and what to do and what not to do is a very important question. As the doctor who has preceded me said, very often when they cannot pass anything from above, they can from below. All my experience has been with young patients, and I find that it is well to tell the parents that we might have to operate. The patient in this case went without operation for three weeks, which is too long. We should always have our resources at our command and be able to tell them what we can do.

Dr. J. D. Griffith, Kansas City: My trouble with these cases has been that they generally come to me with a dilatation, and a bag just above the stricture. In that condition I have found the most trouble. In most of my cases I have failed to get a satisfactory result. When they come early, the results are better. As the doctor who has just spoken says, it is well for the physician to announce that it may become necessary to operate. These are the most difficult cases that the surgeons have to deal with.

Dr. R. M. Funkhouser, St. Louis: I have had some experience in these cases, and, as has been said, the difficulty very frequently is with the bag. There are some cases that seem to bear out the theory that the scar in time will relax. In those cases it is fortunate for the patient. In one case I remember, the patient was in desperate straits, but later on the passage of bougies was followed by an improvement, but in the meantime the condition was very serious.

Dr. Jesse S. Myer, St. Louis: I have had occasion in the past few years to observe a number of cases of obstruction of the œsophagus, but none exactly resembling the one described. I think these cases belong to the surgeon. However, we often meet cases of stenosis of the œsophagus that have not reached the stage described. The important thing to be determined in these cases of obstruction of the œsophagus is the character of the obstruction, whether due to malignancy, or a spastic condition. I do not agree with the doctor that all strictures are due to a previous ulceration. The œsophagoscope, which was not mentioned by the essayist, enables one to make an early diagnosis as to the character of the obstruction. I have been employing in benign strictures of late an ingenious dilator devised by Prof. Straus, of Berlin, which produces dilation by hydraulic pressure. It dilates to any size you want to use, depending upon the amount of pressure employed. This necessitates an opening in the first place, large enough to admit a No. 22 bougie. This would be practically impossible in a case such as Dr. Fulton has described.

Dr. Fulton, in closing: There are a few very interesting points in connection with this case which are not very thoroughly brought out in my paper. In regard to passing an instrument from below, I will say that that was not attempted at the time of doing the gastrotomy for the reason that it was thought best to give the patient a chance to gain some

strength, and after he got strong enough, what frequently occurs in these cases occurred in this case; that is, having been given a rest for ten days, although previously he had not gotten any fluid passed it, the œsophagus opened enough, of its own accord so that fluid began to go through. It was at this time that he was given the thread, which he succeeded in swallowing. I had not then heard of many of the methods of passing instruments that I have heard of since, and especially the rubber bag, suggested by Dr. Myer. The passing of an instrument in such cases as this depends largely upon the skill of the man attempting to pass it. The work should be done only by an expert, and, unless you can place the patient in the hands of an expert you had better go ahead and do a gastrostomy. Why this should be such a bug-bear, I cannot understand. It is so easy that anyone can do it who can do a simple laparotomy.

UNCLASSIFIED CONCLUSIONS IN OTO-LARYNGOLOGY.*

BY FAYETTE C. EWING, M. D., ST. LOUIS, MO.

In this paper I shall endeavor to express some of the positive conclusions that have come to me in my practice of oto-laryngology, selected with little regard for their consecutiveness or bearing upon one another. I have often wondered why the men who write books hazard so few positive opinions; they seem to be satisfied to compile, and quote, and instead of telling what remedy is best for this or that disease, or what two or three are best, they find it incumbent upon them to enumerate the many that have found favor in the eyes of other authorities, leaving the inexperienced, the very ones who need guidance, to tentatively follow their own judgment.

When a practitioner writes a book, he places himself in the light of an authority, and an authority should not be afraid of the personal equation. In the humble place of essayist, I shall seek to gain your attention by the positive pole of the battery.

Usual Therapy of the Mucous Membrane too Irritating: I have become convinced that the usual treatment of the acutely inflamed Schneiderian mucous membrane is too irritant. In the olden days of medical education,—and not so very long ago either, since it was when I was at college,—when students were crammed through a two years' course, certain formulæ were used to convey in a nutshell, more complicated ideas. One, I learned, to express the treatment of inflammation was *"rest, elevation, relaxation."* These principles hold good to-day, and likely ever will. Though the Schneiderian mucous membrane cannot be elevated, the intent of elevation may be applied by our not increasing its blood supply; and by certain other methods, we may hope to rest and relax it. It is rested by anything that will protect it from irritation, it is elevated as we may be able to reduce its blood supply, it is relaxed according to the extent of passivity that we may preserve. We would not prod a sore place *on* the body, why should we prod one *in* it?

Spray Pressure as an Irritant. The pressure exerted by the ordinary spray-apparatus is so forceful that it is a mechanical irritant. A proper equipment requires an eighty to one hundred gallon storage-tank for compressed air, and an hydraulic pump with which to fill it. In the small ten to twenty gallon tank, commonly in use among specialists, a pressure of twenty-five to thirty pounds is demanded to obviate the necessity of pumping up after one or two patients are treated.

As for the little pump-gun shooters of spray, such as the patented portable tanks, wall-attachments, and foot-receptacles commonly employed by general practitioners, which exhaust their supply of air with one or two squirts, the pressure from them is so strong that I can only classify them as a menace, a source of positive evil.

*Read before the Oto-Laryngological Section of the St. Louis Medical Society, February 26, 1908.

A spray pressure over ten pounds is a mechanical irritant and will frequently evoke sneezing. With a large tank, a pressure of seven pounds is sufficient, the sensation of which is barely perceptible, and a half dozen or more patients may be treated without appreciable effect upon the pressure. By not adding a mechanical irritant to our medicament, we are, passively, at least, conforming to two rules of our axiom, —rest and relaxation.

Drugs as Irritants. With the idea of avoidance of irritants, we naturally turn from all drugs which tend to increase vascular tension. We should soothe the acutely inflamed hypersensitive membrane, and drugs have a really small part in our local therapy. Eucalyptol, (suspended in plain yellow vaseline) is almost my sole reliance in such conditions. Often, I use the vaseline alone, when there is excess of inflammation.

Menthol an Irritant. Menthol, the base of most coryza sprays, is a much over-rated remedy in rhinology. I am convinced that it is an irritant, and I have discarded it entirely in acute inflammations of the anterior nares, although I sometimes add it to the post-nasal spray, a much less sensitive surface. My confrere, Dr. F. M. Rumbold, once said to me, "When you turn a patient out of your office feeling worse than when he came in, you have done harm." I believe it. So I take as my guides to the strength of my application to the nares, sneezing, burning, and the watery conjunctiva. An application that excites any of these positively, opposes the principle of rest, elevation and relaxation, for it irritates, and increases the blood supply. Whatever we do, our patient must depart with a sense of comfort and good feeling, and if our treatment fails of this, better by far that we do nothing.

When I was a student at a certain hospital in New York devoted to the treatment of diseases of the nose, throat and ear, I was taught to make iodo-glycerine applications to the anterior nares with a cotton swab applicator. The patients frequently went out with tears and burning, and, in the light of a larger knowledge, I do not doubt, were more harmed than helped. If menthol is used at all in acute nasal inflammation, it should never be applied strong enough to excite any of the three evidences of irritation. My own experience tends to the belief that many noses are so sensitive to it, that we seldom confine its effect to the pleasant, cooling sensation, and usually produce the irritation.

Adrenalin also an Irritant. In like manner, I must condense the two indiscriminate use of adrenalin chloride upon the acutely inflamed Schneiderian membrane. We know how the law of compensation interpenetrates the universe,—we see, in using drugs, that every stimulant is afterwards a depressant. Cocain contracts the arterioles, and anæsthetises the membrane, producing a delightful sensation of relief from the irritable and obstructed nares, but alas, how soon comes the awakening from our delusion. Cocain, first heralded as a panacea for hay-fever obstruction and hyperaesthesia, is now in disrepute; for

experience has taught us that by its use, our poor patient will have added one irritant cause to another. Cocain, according to the Homeopathic doctrine of *similia similibus,* should be the ideal remedy for hay-fever and coryza, since we invariably produce this pathologic condition by its repeated application to the healthy membrane. Compared with cocain, adrenalin is less potent as an anæsthetic, and more so as a vaso-constrictor, and both increase cardiac action. They differ, not in nature, but in degree. If, as admitted, we can produce an artificial coryza with cocain, why not with adrenalin? Regarding them both as nasal irritants, I employ them not at all in my routine therapy, but only when I desire some specific effect, as to secure drainage in sinus disease or operative work.

Quick Cures. The omnipresent law of compensation forbids that we should undo, in a minute, or a day, what required days or months to develop. With a sort of "get-rich-quick" therapy, some of us incline to think that we have cured or benefited a coryza, when, with adrenalin or cocain, we have shrunk a hole in the nares, never considering the aftermath of tares that we must reap. We forget that nature's laws are consistent, that she does not reverse herself, that she works under abiding conditions, as we see in the cases of mushrooms weeds, soft and hard trees; each with varying degree of strength proportionate to the time required for its development. The length of life in all of nature's creations, apparently, is proportioned to the period of their growth; and this seems to apply in the treatment of acute and chronic diseases—the length of time required for restoration from disease to health, being proportioned to the period of growth and development.

The Inconsistency of our Catarrhal Treatment. Quick cures suggest the inconsistency of our catarrhal treatment compared with our attitude towards inflammatory conditions in other parts of the body. "Consistency is the bug bear of little minds," said Emerson, but he was not referring to our attitude toward nature's laws governing the body which are unchangeable, inexorable. Thus our therapy is compelled to follow certain laws governing pathologic conditions. We may cure now and then empirically, but, in such cases, nature has observed her laws, only, we have "builded better than we knew." As I have said, we would not attempt to benefit an inflammation *on* the body by an irritative procedure, neither would we have much faith in applications made at intervals of days. Yet this last is just the method we pursue in our treatment of the nasal passages. If we were called to treat an inflammation on the surface of the body, we would "dress it," that we might protect it and keep our medicament in constant apposition. And, here, I think, is the snag that has made the treatment of unobstructed catarrh a reproach in the eyes of the laity, and those of the profession at large. We attempt that which common thought, and common judgment should teach us is against all experience with like conditions

elsewhere we apply an inconstant spray twice or thrice a week when twice or thrice a day would be rational. Water, the usual vehicle, does not adhere to the membrane, and the medicaments suspended therein, if at all irritant, excite a flow from the mucous glands, that either neutralizes, or washes both vehicle and base away within a few minutes. Since it is impossible to treat the respiratory tract by *fixed dressings,* then it would seem that we should adopt that application which most closely conforms to the quality of fixedness. This resolves the matter into a question of vehicles, and it necessarily follows, that that vehicle is best, which, not being irritant will be most adherent to, and protective of, the mucous membrane.

Vaseline the Best Vehicle. Vaseline, I am convinced, after observing the methods of treating catarrhal conditions in many private offices, and hospitals, in America and abroad, and in my private practice, is the best vehicle. Containing an active therapeutic principle by reasons of its petroleum origin, it is also soothing and protective, and more adherent than any other product that can be sprayed. Common yellow vaseline, melted in a Rumbold atomizer, over a Bunsen burner, and sprayed into the nose, forms a thick salve-coating, which, on the surface of the pharynx or naso-pharynx, is more adherent than any other vehicle. In the passages and crevices of the nose, it will remain for hours, undislodged, if no active effort, such as blowing, is made to remove it. Various medicaments may be suspended in it, in strength adapted to the part to be treated or the special susceptibility of the patient. The Rumbold sprays are not to be confused with the hand-ball atomizer. Heavy vaseline is not adaptable to the small atomizer as this soon becomes clogged, but, through the Rumbold apparatus, a heavy spray is sent in, which congeals at the temperature of the body, and forms a coating of protective salve, maintaining a relatively constant contact of the suspended medicament with the surface, for a varying length of time. Thus by its purely mechanical character, it is curative in that it protects the mucous membrane from cold air and dust in harmony with our idea of rest and relaxation. Here, I would make it clear that these remarks apply particularly to the nasal passages, the more sensitive surfaces, and not to the throat cavity, pharynx, or post-nasal space, which in certain chronic conditions may require active stimulation, and the application of such remedies as nitrate-silver and strong astringents, in aqueous solutions, applied with a swab.

Value of Elimination. And now having told you at some length about what to put into the system, I shall tell what I would *take out.* For, if I had to include all my treatment in one word, and confine my practice to the application of that one word, I should say: *Elimination!* I firmly believe that more good may be accomplished by elimination, than through any process of injection. If either had to be denied me in treating acute coryza, I would rather purge than apply astringents; I would rather remove ptomaines, in dyspepsia and constipation, than spray

the larynx. When we have eliminated accretions and have made it possible for the obstructed glandular system to remove its rubbish, function will be restored and nature given the chance, which she is always desiring, to help herself. Indeed until this is accomplished, I believe that local applications are worse than useless, since they involve inconvenience, expense, and possible discomfort for which the patient receives nothing. The stomach and intestines are entities that should be reckoned with in every case of acute and chronic catarrh of the nose, throat or larynx since they fan a fire that we cannot quench as long as they are diseased.

Having by disease reduced the resistance of the system, they make it susceptible to maladies, which in turn, by a like devitalizing process, encourage others. What avails it to cure a disease—if we could—when factors in its promotion remain? It would not remain cured. Until we have removed the cause, we have builded upon sand, for the membrane of larynx and pharynx being continuous, through the esophagus, with that of the stomach, excreta, and irritant gases therein, tend to promote a catarrhal condition in these organs by direct action. So it is that by both indirect and direct influence dyspepsia and constipation encourage catarrh of the upper air passages. However resourceful we may be in technic, apparatus, and local therapy, in the treatment of acute and chronic catarrhs of the respiratory tract, we are "poor indeed" if we fail in an intelligent appreciation of the influence of general conditions upon local disease.

Diathesis à Catarrhal Factor. Diathesis, should be always in mind, especially with children, in cases of chronic catarrh, whether of ear, nose or throat, when we have no evident obstructions to reckon with. Local applications in the tuberculo-scrofulous diathesis, count for little or nothing, except they be made in connection with remedies which promote organic function. Catarrh is the natural tendency in such diathesis,—consumption itself being a sort of catarrhal process with subsequent breaking down of tissue. Food, fresh air, and rest include almost our sole resources in staying the progress of tuberculosis of the lungs, and they act not directly, or locally, but through the system at large, by increasing vitality and resistance.

Reduced Resistance. In like manner, anything that reduces physical tone, promotes local disease, which often needs only a certain amount of reduced resistance to blow up a flame. It is no uncommon thing to observe typhoid incorporate itself upon a typical malaria, and pneumonia succeed an influenza. When we have such results, we cannot doubt that reduced vitality made successful a slumbering or active assailant, other than that which had already engrafted itself. Again, many times catarrh succeeds an anaemia-producing disease such as typhoid, and departs of itself with the restoration of bodily health, all of which should teach us that, as Lord Bacon, a statesman, took all learning for his province, we, as Oto-Laryngologists, dedicated to the cure of local-disease, should have knowledge of the entire human body, and, in so far as we are required consider it to achieve a local result; take *it* for *our* province.

Faulty Hygiene and Bodily Habit. And here, I might speak at length of the influence of hygiene as a factor in the promotion of physical tone and consequent cure of catarrh—a subject upon which I have most positive opinions, but it would require too much time and I shall be compelled to more generalize than particularize. As a specialist, and in a broad sense a localist, I often feel that "Othello's occupation's gone" or that he had none, when I am presented children, having no provocative obstructions, whose catarrhs are plainly the result of faulty hygiene and bodily habits; children over-fed, over-dressed, and over-excited; under-slept, under-exercised, and under-oxygenated; the hot-house plants of luxuriant city homes, the band-box babies of a degenerate, *fin-de-siecle* civilization. Children of convenience, they are, not consulted in the borning, finding very life in the flitting pleasure of parents, and living to suit their necessity for amusement. "A fig for virtue! 'tis in ourselves that we are thus, and thus," said Iago. And with such subjects, I sometimes am tempted to refuse local treatment and exclaim, "A fig for physic!" for surely 'tis in themselves that they are thus and thus, and with their parents largely lies the cure.

Parental Obligation. Until their parents are willing to give them the opportunity for physical as well as mental education, local treatment to the nose and throat will profit them little. But I solace my conscience knowing that I am justified in my local applications until I gain the confidence of the parents sufficiently to enable me to secure more lasting results, through the broad measure of hygiene. After all, results are the object of the conscientious physician, and he is bound to no dogma in the domain of cure. Every child has a moral right to be well born, and having been born, to be well-bred. And by this, I mean that men and women afflicted with marked transmissable hereditary disease and stigmata of degeneracy have no right to afflict an innocent offspring; but however born, the child has a moral right to be physically well-bred, to make the best or better of whatever natural equipments nature has bestowed. It is a solemn obligation and I have no respect for the amusement and convenience-loving parents, who sacrifice their children to their pleasure. Suburban environment may not be the ideal for physical development, but it offers many advantages over the restrictions of the city not so much in a purer air, though that is something, but in its encouragement to the out-door life, with its increased exercise, muscular development, lung expansion, and consequent activity of organic function. It was the contemplation of such benefits to my children that made me select a suburban home at possible pecuniary, and decided personal sacrifice. But whatever the circumstances of the family, parents who reside in crowded cities owe the debt of self-sacrifice, to the extent of their ability, to benefit those whom they brought "into this teeming world" before "the age of consent." Life is hard enough with health. The trite old reply to the question, "Is life worth the living?" making it "depend upon the liver," is but partly stating the case—whether life be worth the living depends upon the health of *all* the organs, and all need rational education and nature's daily food and stimulus with which to work.

449-450 Century Building.

A HISTORY OF AMPUTATIONS I HAVE DONE ABOVE THE SHOULDER JOINT.*

BY GEO. HALLEY, M. D., KANSAS CITY, MO.

The first of these amputations I have done was on a gentleman who came to me with an enlargement under the arm. This enlargement I lanced, but found that I did not open a pus cavity but had opened an osteosarcoma, beginning in the venter of the scapula pointing downward, I now recognized the fact that I had to deal with a sarcoma in the axillary space. I desisted in the operation and waited until the next day, desiring to consult the man about the propriety of doing another operation. What that would be I told him I could not tell but that I might have to amputate above the shoulder joint. The disease extended well up under the axillary space. The man asked for another day to think about the matter. He was in a very weakened condition and was afraid he could not bear the operation. I told him that there was no hope of saving his life, except by the operation, and while it was a severe one it was not fatal; that the results of the operation were usually favorable. How it would be with him I could not tell. Two days after lancing the enlargement he consented to have the shoulder amputated. This I proceeded to do in the following manner:

After anæsthetising him and putting him on his side, and with a knife beginning at the vertebral border of the scapula, I made an incision along the spine of the scapula to its acromial end. Turning the knife now I proceeded along the upper border of the clavicle, bringing it in to the inner fourth. I dissected up the integument off the tumor, and bearing the clavicle as far as was necessary to expose the whole of the scapular region and the upper border of the clavicle, I divided the sternal end of the clavicle at the junction of the inner with the outer three-fourths; I then turned it downward and dissected the skin over the chest a short distance so as to relieve the bone of the pectoralis major. I then with an angle cutting forceps, cut through the clavicle. This left the bone practically free. I caught the subclavian artery and vein behind the clavicle and tied them both. I then proceeded to dissect over the integument from the border, leaving the whole integument as far forward as the axillary border of the scapula. I then severed the artery and vein and turned the shoulder backwards with all that it contained; that is, with its muscles and with all the nerves and other tissues belonging to the shoulder. The operation was completed in practically about fifty minutes. I closed the wound by stitching the skin, putting in drainage tubes and dressed him. The shock was very great and he was exceedingly feeble when taken off the table. He lived through the night and on through the next day, when he gradually became uncon-

*Read in the Surgical Section, Fifty-first Annual Meeting, Springfield, May, 1908.

scious and died the next noon. Persistence of shock was the cause of his death. On the examination of the shoulder it was found that the disease had extended far up underneath the scapula.

My next case was a young lady, who came to me with her mother to consult me about a swelling on her shoulder. This, on examination, I believed to be osteosarcoma of the scapula. Profiting by my experience in my former case, I decided to try the effect of cutting away a part of the scapula, leaving the rest of the bone, enough of it, as I thought, to make a useful shoulder. She was put under an anesthetic and an incision was made along the spine of the scapula and transversely upward toward the root of the neck. The outer flap being provided for by dissecting back the skin from the spine of the scapula outward toward the axillary border. The scapula being thus exposed I made an incision with the angle cutting forceps, cutting through the body of the scapula far enough back to leave the spine of the scapula firmly adherent to the neck. When I reached the body of the bone I cut through the bone, lifting out the whole of the inferior angle of the scapula. In fact, cutting out about two-thirds of the whole of the scapula, leaving the subscapularis muscle. I adjusted some drainage tubes and closed up the opening and put her in bed. The wound healed without any untoward circumstances. The girl left the hospital in about three weeks with a very poor shoulder, but still a shoulder and arm that were of some use to her. There was but little loss of blood. The drainage was good and healing was completed without anything untoward in about three weeks. This was done during the summer months. She went home, a short distance from Kansas City, and remained well for some months. During the early winter there came an enlargement in the cicatrix. I did not know at that time what that could mean. I visited her at her home. She was feeble and very much debilitated. In about six weeks after my first visit to her at her home I visited her again and found the swelling much increased and she very much weaker. She was indeed so weak that it was impossible at that time to operate on her at all. This weakness continued, the growth continuing to enlarge, until she finally died, in April. This was my first case of infection of the bone, about which I shall have more to say in the future.

My third case was a negro at the City Hospital. During a clinic the nurse showed me a case of enlargement of the shoulder, wanting to know what I thought it could be. After an examination, I said it was an osteosarcoma of the shoulder blade. The man desired to know what I could do for it. Then I told him that I would have to cut away a large portion of the shoulder blade, but that I would not cut off his arm. This he consented to. I made an incision over the spine of the scapula and dissected the skin toward the vertebral spine, and then toward the axillary space. I reached forward cutting the spine of the scapula and cutting through the neck of the scapula, and removed the whole of the rest of the bone and subscapular muscle, leaving the spine and neck of the scapula alone. The dressing was done by the nurses at the City

Hospital. At the next week's clinic I saw him again. The wound was healing well, the drainage tubes had been removed and the shoulder seemed in good condition. The man left the hospital in about four weeks. The arm, of course, was a little better than a flail, and of no use to him whatever. The man I did not see again until the next winter, when he appeared in the hospital again with a large growth under the cicatrix at which I had removed the scapula. The growth was hard and indicated the possibility that there was a new growth occurring in the neck of the scapula and spine and throughout the whole wound. I proposed to him the removal of the whole of the arm and scapula, but this he objected to. I told him that I had removed the bone and that there was nothing left there but the cicatrix and that had become diseased and could be removed by removing the whole of the subscapularis (part of which I had left when I removed the scapula). He left the hospital without the removal of the tumor which had returned in the cicatrix. This was the second cicatrix that I had the tumor return in and showed me very clearly the terribly infectious character of the tumor—but more of this anon.

A Mr. C. called on me with an enormously large osteosarcoma of the scapula. He said that a year before he had gone to Chicago and consulted the surgeons there about having it removed. They refused to do it, saying, "he could not live through the operation." It was very large indeed, and showed symptoms of softening and breaking down. I told him the dangers were, that removing so large a part of his anatomy would be a severe shock to him. He said, "I don't care, I want to get rid of the shoulder." After consulting with him for some time we finally came to an arrangement by which I was to remove the shoulder and do the best I could for him. He was put on the table after being prepared and a large incision made over his shoulder, not, as I had formerly done, making a straight incision; but the tumor was so large I made an elliptical cut, lifting a large mass of skin off the spine of the scapula. The integument was dissected down quite to the axillary space. On the other hand the skin was dissected up quite back to the spine; through this large opening I was able to divide the zygomaticus major and minor and the levator anguli scapulæ. With the division of these I was now able to turn back the shoulder from the spine, removing the enormous mass and severing the subscapularis from its attachment to the ribs (the subscapularis was adherent to the ribs so fast indeed that a portion of two or three of the ribs pulled away as I separated the tumor from the body). The mass removed was enormous, weighing when put on the scales, a little over fifty-three pounds; and from a small man this was a great deal to be removed. He was put to bed, drainage tubes having been adjusted, and stimulants and light diet being freely administered to him throughout the night. The next day he was very much better and continued to improve for several days. The wound healed kindly and well. On the fifth day, however, he had a chill, which was followed by pneumonia. Bloody sputum was very abundant and on the seventh day he died.

The next case I saw was Mr. ———, who came with an open sore in his arm. The arm was swollen, red and enlarged. He told me it had been operated upon three different times for diseased bone, but that they had never found any diseased bone. It was discharging a large amount of bloody serum and showed very conclusively all the way up to the axillary that it was an osteosarcoma and not a tuberculous abscess. I proposed the operation of removing the arm at the shoulder joint. This he consented to and he was consequently prepared for it and put on the table for the operation. When the flaps were made at the shoulder joint I found that the disease extended above the neck of the scapula. I desisted in the operation and allowed him to come to, and consulted with him about the propriety of removing the whole shoulder. This, after a time he consented to, when he was again put under an anesthetic and the operation proceeded with, *secundum artem.* The clavicle was divided at the junction of the inner fourth with the outer three-fourths of the bone. The vessels were caught up and tied and severed. The nerves were divided and the whole shoulder was turned back. The whole of the subscapular muscle was filled with sarcomatous tissue almost as far back as the scapula extended. The shoulder was removed with complete success, the tissues underneath the shoulder blade were left, in apparently a healthy condition. The end of the clavicle that was left seemed healthy and everything, indeed, promised fair for a successful recovery. Drainage tubes were placed in the wound, the patient dressed and put in bed. Healing took place without any untoward circumstances, the patient leaving the hospital four weeks after the operation, in apparently perfect health. In about eleven months after the operation the patient returned to Kansas City with an enlargement of the sternal end of the clavicle. I was astonished at this, as no disease, apparently, was in any way connected with the clavicle. I put him in the hospital, prepared him for the operation and in due time dissected out the sternal end of the clavicle, being careful to keep as far from the bone as possible. It was enlarged to the size of a turkey egg and very red, sticking up almost directly forward. With a good deal of difficulty, I disarticulated the bone and closed up the wound, leaving the articular cartilage free. He went home in a week, apparently perfectly well. He has remained well and was in good health three years ago, since which time I have not heard from him. It is now twelve years since I operated on him and no recurrence having occurred, I take it that he is still in good health.

The next case I saw was a lady from Cass county. She came with a very large osteosarcoma of the shoulder. It was painful and distressed her a great deal. When I proposed removing the whole shoulder she readily consented to it, feeling, as she said, that she would get rid of the whole thing. She was put in the hospital and prepared for the operation. Assisted by Dr. B. I made the necessary incisions. I laid the tumor back, or rather the shoulder, ligated the vessels, and severed and dissected out carefully the subscapular muscles. Dr. B., in order

to assist me, took hold of the arm below the elbow and lifting it so I could remove the tumor, the arm suddenly turned and the strain came on the tissues and the vessels. The vein was forcibly pulled out from its attachment behind the clavicle, where the severence had been made. There was a sudden girdle of air entering the vein, the woman's face blanched instantly and the heart ceased beating and she was dead in a little more time than it has taken me to tell. The tumor was a round cell sarcoma and quite firmly attached to the ribs. The result of this operation was sad indeed. She was a young woman in the prime of life and had a good prospect of life before her. The sound of air entering the vein only needs to be heard once to be fully appreciated.

I wish now to call the Society's attention to the operation in its detail and its results.

In the first place, when there is a round or giant-celled osteosarcoma of the shoulder, never remove less than the entire shoulder, for if you do the disease will inevitably return in the dismembered bone and your patient will be no better than before the operation.

Second: In doing the operation the greatest care must be taken in order to completely sever and free the severed blood vessels from the adjacent tissues. That was the cause of the death of the lady from Cass county. Had the vessels been entirely divided and the tissues as well, the sudden jerk of the elbow bending would not have occurred and the operation could have proceeded to its termination with the ordinary results.

Third: The operation, to be reasonably successful, requires to be done early. Late operations mean involvement of a great deal of tissue adjacent to, or even at some distance from, the original seat of disease.

Fourth: Free drainage must be established. From the depth of the wound and the large involvement of lymphatic vessels, it is very necessary to employ plenty of drainage tubes. They should go to the bottom of the wound and come out as freely as they possibly can. All bone or bones that can possibly be infected by the disease, either by running through or adjacent to the tumor, must be removed.

Fifth: The technic of the operation is purely my own. When I performed the first operation I could find no assistance whatever in works of operative surgery and, of course, commenced the operation as my anatomical knowledge dictated by common sense.

Sixth: The man who undertakes this operation must be thoroughly familiar with the anatomy of the tissue that he is mutilating.

Seventh: No partial operation is admissible, as is shown by Miss A. W. and the man at the City Hospital, the disease being in the scapula. To cut the bone is simply to leave a nucleus behind from which the disease will again inevitably develop and a new tumor be formed from it.

GENERAL ANAESTHESIA.*

BY J. J. FARRELL, M. D., HANNIBAL, MO.

A prominent Eastern surgeon recently remarked that if he was to be the subject of a surgical operation he would be as choice in the selection of his anesthetist as in the selection of his surgeon. General anesthesia of late years has become to be more respected by the average physician and surgeon the cause of which is easily understood, for there is scarcely a week elapses that we are not confronted by some article in this or that medical journal of fatal narcosis from ether and chloroform; hence the day for the anesthetic specialist is ripe. In all communities, large or small, the young man, or the least experienced in the profession, is selected for the so-called least responsible position at the head of the operating table; general anesthesia is that condition in which we have a complete loss of consciousness and an entire abolition of reflexes, hence, it is dangerous in any hands and should invite on the part of the physician and surgeon a more conservative and conscientious consideration.

At any and all times one of us is called upon to administer an anesthetic, and we should be ever mindful of its many dangers.

Mixed narcosis, the administration of nitrous oxide gas with oxygen, is still in its infancy in this country owing to the imperfection of inhalers and the inaccuracy of the different quantities of gas; the A. C. E. mixture seems to be no improvement upon the old and the H. M. C. tablet has its disadvantages, especially in obstetrics both as to the effect upon the mother and child, therefore in this paper I will only treat of the two most powerful anesthetics, ether and chloroform, leaving the ethel chloride mixtures and subarachnoid punctures for some future date.

In the production of narcosis we notice that different parts of the nervous system possess different degrees of resistance; in the observation of Dr. Hewitt of London, they are overcome in the following manner, first the cerebrum, second the cerebellum, third the sensory nerves of the cord, fourth motor nerves of cord and fifth the medulla; while the anticipated effect upon the nervous system is to paralyze its various parts, we frequently notice that this condition is preceded by the stage of excitement; this is due to the fact that all general anesthetics act as stimulants in less than narcotic doses; this may be explanatory of the fact that septic cases take anesthetics well, owing to their stimulation by septic toxins. As has been seen the last portion of the nervous system to be overcome by the paralyzing influence of the anesthetic is the medulla and it follows that respiration and circulation are thus maintained long after practically all other bodily functions have been abolished.

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*Read before the Marion County Medical Society, April 16, 1908.

In the period of perfect anesthesia we have complete muscular relaxation, absence of corneal reflex and almost pin-point pupils, reaction to light is sluggish or absent and the state of respiration and the circulation not markedly different from the normal, except an occasional stertor, or snoring noise; while certain localities will still maintain a response to reflex irritation, such as the anus, perineum and bladder. The narcosis of ether is characterized by a phenomena of irritation and stimulation and a tendency to the production of asphyxia and by a marked depression as compared with chloroform while the narcosis of chloroform compared with that of ether is characterized by the absence of irritation and stimulation, by a tendency to the production of mechanical asphyxia, by the occurrence of depression. In the choice of the two most powerful anesthetics, ether and chloroform, the literature and personal observation should make us partial to the former; some prefer one, some the other; this I think is not due to the fact that we feel one is safer than the other, but that we have become more familiar with the use of the one owing to training and frequent administrations. From most reliable statistics, ether is found to be about five times as safe as chloroform; then ether undoubtedly is the anesthetic for the beginner to administer. Again, the presence of danger from ether can be detected while there is yet sufficient time to ward it off by the administration of stimulants, etc.; ether, when properly administered, will have fewer contraindications and should be employed in preference to chloroform in every case possible.

Chloroform may be employed when ether has failed, or in the presence of the history of trouble with a previous etherization; chloroform seems to be safer with children than adults, and especially adapted for obstetrical cases. Minor procedures for children are not of enough consequence to insure the liability of a general anesthetic; in other words we should prefer to let a child remain with an elongated prepuce until old enough to use a local anesthetic.

I have administered chloroform to a patient with valvular lesions of both sides of heart and see the patient take the anesthetic beautifully, and next day administer chloroform to an alcoholic and have total anuria as the result. The majority of fatal cases of narcosis occurs during the first ten minutes of administration; just why this should be the literature fails to enlighten us, and like other conditions of medicine when the etiology is protean the conclusions are indefinite.

We are all conversant with the preparation of a patient for general anesthesia, empty stomach, flushed bowels, and the removal of all foreign bodies from the respiratory tract; never begin an anesthetic without first familiarizing yourself with the condition of patient's pulse and any deviation from same during anesthesia will be more readily recognized; the anesthetist should always gain confidence of patient and assure him that his heart and lungs are in good condition and that they will have no trouble whatever as this will often obviate nervous phenomena on the operating table.

Some authorities recommend the hypodermic use of morphine about fifteen minutes previous to the administration of the narcotic; this I think is bad practice owing to its myotic action on the pupilary reflex, which is the chief index to the depth of narcosis, and is strongly contra-indicated with ether when we have any respiratory difficulty, anemia or old age.

Instruct the patient to breathe slowly and deeply and not antagonize the anesthetic; in applying the mask, at first allow a free admixture of air with vapor as this will not be so irritating or disagreeable.

The drop method of ether and chloroform seems to be the ideal one, especially is this true of ether, as this will permit the use of chloroform mask and avoid an ether pneumonia, which I think is often due to the inspiration of cold air radiated from the metallic ether inhaler. Never increase the anesthetic during the exciting stage; better permit the attendants to control patient and continue slowly, always being observant of patient's color and respiration, as the circulation is the last to fail. Let the left index finger rest on the facial artery; in this manner you may determine the condition of the pulse, while the right hand may be used to control the mask and elevate the jaw. Never permit the surgeon to begin the operation until the patient is thoroughly relaxed, as the first incision may bring on a deep inhalation causing an over distension of the right heart, shock and a sad accident.

Always watch the patient and not the field of operation; at intervals inform the surgeon as to the condition of patient; he may in turn be of assistance to you in detecting a cyanosis which first manifests itself in the condition and color of the blood; in spasmodic contractions of the diaphragm, preliminary to vomiting, push anesthetic, exclude air and patient will readily relax. Nearing the completion of all operative procedures about the rectum, always fortify the patient with a hypodermic of strychnia as the sudden cessation of the stimulus about this plexus is often followed by intense shock. As to the method of resuscitation from anesthetic syncope, we are all more or less familiar. Death from chloroform and ether may occur suddenly from paralysis of the heart, from the too energetic supply of vapor on a fatty or enlarged heart. Death may also occur suddenly from the falling back of the tongue over the epiglottis causing asphyxia. Death may also occur from coma, owing to a violent congestion of the brain, therefore beware of alcoholics, nephritics and epileptics. Death and septic pneumonia may be the result of vomited material gaining entrance into the larynx; death also may be the result of the combined symptoms already mentioned, associated with surgical shock.

As stated before, we are all more or less familiar with the method of resuscitation from anesthetic syncope, but I cannot refrain from reminding you that the rhythmical retraction of the tongue is our best respiratory stimulant, and that heroic doses of adrenalin has saved many lives. True, an anesthetic in the hands of an expert is free from many dangers attributed to it, but after being an eye witness to three fatal

cases of narcosis in the short period of one week, and then before the operator had made an incision, one becomes a little discouraged and wonders if all our observations and precautions are futile. Sometimes we are apt to think that the fatality of anesthesia depends upon the number of anesthetics one administers, or, if one has the least vestige of superstition, luck plays a very important role. All cosmetic surgery and unnecessary surgery in the abdomen is an imposition upon the anesthetist and without mental reservation he should object.

Time is an important factor and the words "sufficient anesthetic," from the mouth of the surgeon always comes happily ringing in the ears of the anesthetist. In all surgical operations surely the anesthetist shares half of the responsibilities, and when sad accidents occur on the operating table, it is only too natural to first think of the anesthetic, irrespective of shock and hemorrhage; hence, the compensation for administering anesthesia is entirely inadequate; especially is this true of major operations where the surgeon's fee is large. The physician who gives chloroform in a dental chair for a two dollar fee, surely is ignorant, or greatly depreciates his responsibility.

DISCUSSION.

Dr. Edward G. Blair, Kansas City: Dr. Halley's paper is not only unique, but it is an extraordinary paper. It takes a man with a large surgical experience such as Dr. Halley has had, to produce a paper of this character. One of the questions raised is, shall we operate on these malignant sarcomas, or leave them alone; and if we do operate, shall we make the operation thorough? The conclusion at which he arrives is, that we should operate, that there is nothing to be gained by avoiding operation, and that the operation offers a certain amount of relief. That is the most valuable demonstration he has made before this Society. All of us shrink from operating on malignant growths of this character, and when he has produced such results as he has recited, it is an encouragement for us to go ahead. I am impressed with the idea of the complete removal and going back to the very foundation of the trouble. I remember one case illustrative of this point where a diagnosis was made of tuberculosis of the ankle joint. On operation it was found to present features of a sarcoma which proved on examination to be spindle celled. Consent was given to disarticulate at the knee joint. This was done in the usual manner, but the wound failed to heal and the condition persisted. Scrapings were made, and on examination it was found to be a round cell sarcoma. It was simply an extraordinary development of a pathological condition which you can expect to encounter in cases of sarcoma of the limb. Subsequently the limb was amputated, with relief. This very well illustrates the point made by the essayist that you must go back. Another point relates to the technic. To handle these cases properly a man must be an experienced surgeon and devise his own technic.

LEUKEMIA.*

BY P. DONOHOO, M. D., JOPLIN, MO.

This is one of the few diseases that can be diagnosed only by the hematological findings. It is characterized by certain definite changes in the corpuscular elements of the blood—a hyperleucocytosis, a proportionate reduction in both the hemaglobin and the red cells, the occurrence of nucleated red cells, and the presence of swellings of the lymphatic and blood forming vessels, and finally by the occurrence of lymphatic neoplasms in the organs. Generally speaking leukemia may be divided into two general classes, myeloid and lymphoid; again the disease may be mixed, taking the form of both myeloid and lymphoid blood.

When the blood is of the myeloid type, the spleen is usually enlarged; there is a hyperplasia of the red marrow, resulting in internal tension in certain long and flat bones, and may develop nodular tumors along the course of the bone. These swellings sometime become sensitive to the touch, and also the seat of more or less inflammation. These conditions are usually well marked but transitional, or combination forms are occasionally observed and, moreover, these cardinal symptoms may be absent altogether, as we shall see by the report of a case herewith, where the blood-picture was that of myelogenous leukemia, and the spleen was not palpable. Lymphoid blood is found in the lymphatic type of the disease, though more rarely; this variety also is more rapid and more fatal than the form just described. It is more apt to occur in young subjects, and sometimes develops acutely and terminates fatally in two or three months. In this type of the disease the lymphatic glands, not the bone marrow, are the seat of hyperplastic proliferation. I am inclined to the belief that this malady is related to neoplastic processes. Our present knowledge of the pathology of the disease hardly bears out this theory, but the clinical course certainly resembles it very much. A great many conditions have been ascribed as predisposing causes, such as syphilis, long continued malaria, diphtheria, membranous angina, influenza and trauma. Coexisting tuberculosis has also been frequently observed. Cases of infection and heredity have been reported. The course may be acute, but many cases drag on for years. Intercurrent diseases, sepsis, etc., may temporarily change the blood-picture and render the diagnosis difficult. Leukemia attacks persons in the best years of life. Males are chiefly attacked.

Symptoms. In the myelogenous form the spleen usually enlarges, sometimes becoming of enormous size occupying one-half of the abdominal cavity. It may be immovable from adhesions; a sense of weight, dragging and oppression in the left side often being the premonitory symptoms. As a result of feeble circulation, edema of the feet generally

*Read in the Medical Section, Fifty-first Annual Meeting, Springfield, May, 1908.

occurs, anasarca or adominal ascites, may develop; epistaxis is common; hemoptysis is rare; haematemesis may be the first symptom and the loss of blood be so great as to cause death. Bleeding from the gums, purpura of the skin and mucous membranes, and intracranial hemorrhages have been reported. Intestinal hemorrhages may occur or dysenteric process develop. Dyspnea is an early and characteristic symptom, and is due to anemia; headaches, dizziness and fainting spells are frequently observed. In lymphatic leukemia there is a general lymphatic enlargement, as a rule soft, isolated and movable, and varying considerably in the course of the disease as to size. The tonsils, lymph follicles of the pharynx, tongue and mouth may be enlarged. The lymphoid growths may occur in the liver, spleen, omentum, thymus gland and skin. The bone marrow is often replaced by lymphoid tissue. Death ensues, frequently caused by secondary septic envolvement.

Pneumonia or hemorrhages. The determination of the hemaglobin is rendered difficult by the increase of the white cells, the proportion often being 1 to 20, and even more. In lymphatic leukemia the leucocytosis is due to an increase of the lymphocyte cells; the increase is largely of the small lymphocyte (as high as 90 per cent., or 95 per cent.); eosinophiles and normoblasts are rare. Polynuclear cells in these cases, amount to only a few per cent. The total proportion of white and red cells, or the ratio they bear to each other, is of less importance in making a diagnosis than the differential count showing the kind of white cells present, and the ratio they bear to each other. In myelogenous leukemia there are, aside from considerable augmentation of the polynuclear cells, first, mononuclear neutrophiles, or cosinophile cells (Erlich's myelocytes), which do not exist in normal blood; second, absolute and relative augumentation of the "mastzellen" (polynuclear cells with basophile granulation); third, atypical forms (karyokinesis), extremely small or large forms, polynuclear cells (with granulation slight or absent). The red cells are always decreased, perhaps to two or three million per cubic millimeter. There are present nuclear cells (mostly normoblasts), less often poikilocytes, microcytes, and megaloblasts. In myelogenous leukemia there are also present mast-cells in the exudate.

Report of Case. Mr. S., age 43, married, of good personal and family history. He has been a business man all his life, vigorous and active, weight 195 pounds, until a few months prior to the first time I saw him at which time he weighed 158 pounds; pale and anemic and extreme sallowness of complexion, complained of being tired, pains in extremities, glands not palpable, spleen not enlarged. Complained of frequent colicky pains in the abdomen. His blood picture was as follows: Hemoglobin, 65 per cent., red cells, 2,600,000, white cells, 125,000 per cmm. Differential count showed polynuclear cells 45 per cent., small lymphocytes, 18 per cent., large lymphocytes, 8 per cent., myelocytes, 28 per cent., cosinophiles, 2 per cent. Under the influence of rest, proper diet, etc., together with Fowler's solution of arsenic and glycerite of

red bone marrow, he improved in two months until he weighed 172 pounds, a gain of 14 pounds. His hemaglobin was 80 per cent., red cells, 3,600,000, white cells, 45,000 per cmm. A differential count showed polynuclear cells, 56 per cent, small lymphocytes, 20 per cent., large lymphocytes, 4 per cent., myelocytes, 18 per cent. eosinophiles, 5 per cent. He remained in this condition for a while, then gradually declined to a state worse than when I first saw him. A change of climate was advised, and he has gone to a southern climate.

Treatment. Consists in rest, diet, change of climate, drug therapy, and the x ray. Rest is of the utmost importance, both mental and bodily rest. The patient should be absolutely free from work and business cares. Particular attention should be paid to the diet, having it of the best food, easily digestible and assimilable. A change of climate, if possible. The patient should be sent to a warm climate, of as even temperature as can be obtained, and the patient should be dressed in woolen garments, not burdensome, however, but so that he will not feel the atmospheric changes. There being no specific, our drug treatment is largely symptomatic. The drugs found most beneficial are arsenic, in form of the Fowler's solution, given in increasing doses until tolerance, and the extract of red bone marrow. The x ray treatment is, at present, in the experimental stage.

Conclusions. First: That leukemia is a malignant disease and therefore not curable unless, possibly, certain forms by the x ray treatment, and this being doubtful.

Second: One may have leukemia for a considerable time with no physical signs or symptoms sufficient to make a diagnosis without a careful blood examination. The high leucocytosis, spoken of by the older writers, is not of so much importance as the differential count of the leucocytes present.

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ADDRESS ALL COMMUNICATIONS TO METROPOLITAN BUILDING, ST. LOUIS, MO.

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E. J. GOODWIN, M. D., Editor.

PUBLICATION COMMITTEE:

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EDITORIAL

THE DEFENSE FUND.

The establishment by the Association of a defense fund and the creation of a committee whose duty it will be to assist in defending members against whom suits for civil malpractice may be brought, gives promise of meeting the endorsement of the members and of furnishing an additional bond uniting the medical men of this state. We are told that already the advice of the committee has been sought in several instances. The sum placed at the disposal of the committee is very small, yet it is hoped that by judicious expenditure of the money and by careful consideration of the cases many of them may not go to trial and the usefulness of the committee may not be disappointing.

We learn from the committee that Mr. Morton Jourdan, the distinguished member of the St. Louis bar, has placed his legal advice at the disposal of the committee gratuitously. It will be remembered gratefully that when the Association was incorporated Mr. Jourdan acted as our representative and asked for his reward only the privilege of being associated with the medical profession.

The committee hopes that those who are threatened with lawsuits will present to it a full statement of the case immediately, setting forth exactly the dates on which the alleged malpractice is said to have occurred together with the full names of those interested as well as copies of letters which may have passed between the plaintiff, or his attorneys, and the physician, as well as other documentary evidence which may have a bearing upon the case. This will insure prompt action and will avoid the necessity for extensive and frequent correspondence.

THE TUBERCULOSIS COMMISSION.

So many questions concerning the relief and prevention of tuberculosis in St. Louis have come up that it seemed good to the city authorities to appoint a commission of citizens to consider the best method of harmonizing and simplifying the work. We have the Board of Health, with its large responsibility; the different city institutions, with their inadequate accommodations for the tuberculous; the local society, with its ramifications and earnest workers; one or two large private sanatoria for consumptives, and, what is more important, the general awakening of the citizens to the necessity for more effective measures to control the plague.

The establishment of this commission is a fitting cap-sheaf for the various bodies devoted to the extermination of tuberculosis, and the harmonious and intelligent cooperation of these bodies can not fail to cause a material decrease in the mortality of this fateful disease.

The ordinance is as follows:

Whereas, the large mortality from pulmonary tuberculosis in St. Louis demands that action be taken by the Municipal Assembly for the limitation of this disease; therefore

Be it ordained by the Municipal Assembly of the City of St. Louis as follows:

Section One. The Mayor shall appoint a Commission of nine citizens to investigate the prevalence of tuberculosis in St. Louis and to report to the Municipal Assembly their findings, together with recommendations of measures for the limitation of the disease.

Section Two. The services and duties of the Commission above referred to shall terminate one year from the enactment hereof, at which time its report shall be submitted in full to the Municipal Assembly for its further consideration.

Section Three. The Commission, except the secretary, shall serve without compensation other than their actual expenses. The Commission shall organize by the election of a chairman and secretary at its first meeting. The time and places of meetings may be fixed by the Commission. The Commission is authorized to fix the salaries of the secretary and any other employes, to rent office room, to buy office furniture and fixtures and to secure necessary stationery and other printing. Bills for the expenses incurred by the Commission shall be approved and certified by the chairman of the committee.

Section Four. On or before the fifteenth day of May, nineteen hundred and eight, the Comptroller shall have authority to transfer from Municipal Revenue to "Fund for the use of the Commission on Tuberculosis" the sum of Twenty-five hundred dollars.

It will be seen that the function of the Commission is advisory, rather than judicial or executive. It is organized as follows: Dr. William Porter, chairman; Mr. J. H. Lynch, vice-chairman; Mr. R. J. Newton, secretary; Rev. Timothy Dempsey, Mr. Edward F. Goltra, Rev. B. T. Kemerer, Mr. John F. Lee, Mr. D. C. Nugent, Mr. Charles A. Stix.

Already statistics have been gathered from almost all the large cities and state boards in the United States and Europe, and exact statements are being secured from our local institutions, clinics and from the Board of Health. Visits have been made to the city hospitals, quarantine, Mount St. Rose, etc., for the purpose of recommending better adjustment of the city and individual efforts. From time to time the advice of our health officers, physicians, and individuals and organizations in touch with the great work, will be sought.

The appointment of this commission and the compulsory registration ordinance, in addition to other efforts, place St. Louis in the front rank of cities active in antituberculosis work. It may be added that the ordinance was passed by the Council and House of Delegates without a dissenting vote and promises are given by our legislators to aid the Commission in every way.

FOR THE ADVANCE OF PSYCHIATRY.

Perhaps one of the most encouraging signs of the times, in relation to the advance of medical science, is the fact that wealthy laymen now, more frequently than at any previous period, willingly donate large sums of money for the purpose of founding institutions and laboratories where diseases that have baffled the skill of our most expert clinicians may be studied by trained men, unhampered and unhindered by the more pressing demands of earning a livelihood in practice. Medical science of the present age has been advanced through the gift of large sums of money to a far greater extent than ever before in the history of the world, and the relief and control of disease has been correspondingly greater than in any generation in all medical history.

The recent gift from Mr. Henry K. Phipps of Philadelphia, of $750,000 to the Johns Hopkins University, for the purpose of building, and endowing for ten years, a psychiatric addition to the Johns Hopkins Hospital, is the beginning of what will undoubtedly prove to be a notable advance in this branch of medicine, already highly developed through the unselfish labors of scientific medical men. This munificent gift places the medical profession, and, in a far higher degree, the general public, under new obligations to the generosity and philanthrophy of Mr. Phipps, who has, in addition to this donation to the advance of psychiatry, established from his own funds the Phipps Institute of Philadelphia and the Phipps Dispensary for Tuberculous Patients at the Johns Hopkins Hospital—two institutions where the great problem of controlling the ravages of tuberculosis is being studied. Dr. Adolph Meyer of New York has been appointed director of the psychiatric clinic and professor of psychiatry in the new institution.

GIFT TO THE SKIN AND CANCER HOSPITAL.

The St. Louis Skin and Cancer Hospital has received the munificent gift of $100,000 from Mr. George D. Barnard of St. Louis. This money is given to the Hospital for the purpose of purchasing a suitable site for a new building and properly equipping the institution for the treatment of cancer and diseases of the skin.

This is a noble gift and most fittingly bestowed, a monument to the generosity and philanthrophy of Mr. Barnard, which will endure in hearts made happy through surcease of pain. The name of the institution will be changed to the Barnard Free Skin and Cancer Hospital, and will remain forever a free institution.

Although it was established only three years ago, the Skin and Cancer Hospital in St. Louis, during this comparatively short period, has become well and favorably known in the scientific world through the intelligent work of its medical staff in the care of cancer and diseases of the skin, and for original research into the cause and treatment of these diseases. With the improved conditions and larger facilities which the gift of Mr. Barnard will provide, the present capacity of the hospital will be doubled and the systematic investigation into the cause of cancer —a malady which annually destroys approximately 36,000 lives in this country—can be prosecuted with more scientific methods than has been possible hitherto.

PROFESSOR MARTIN'S VISIT TO ST. JOSEPH.

The medical profession of St. Joseph had the honor recently of entertaining one of the most distinguished surgeons of the old world, and a gifted teacher whose fame is international, in the person of Prof. A. Martin, of Berlin. Through the instrumentality of Dr. O. B. Campbell, who is a former student and close personal friend of Prof. Martin, he was persuaded to visit St. Joseph on May 18. Arriving at 8 o'clock in the morning, Dr. Martin was welcomed at the station by Dr. Campbell and a committee of physicians. After a breakfast at the Benton Club, he was given an automobile ride around the city, and to the State Hospital for the Insane, No. 2. At 11 o'clock he lectured to a large audience of physicians, students and nurses at the Ensworth Medical College, and at 1 o'clock he was the guest of honor at a luncheon at the Metropole, where sixty members of the St. Joseph-Buchanan County Medical Society were gathered to welcome him. Dr. H. S. Forgrave, president of the Society, acted as toastmaster, and in introducing the honored guest, referred to him as the greatest living teacher of gynecology, at whose feet have sat many of America's most brilliant surgeons.

BEQUESTS TO ST. LOUIS INSTITUTIONS.

Washington University of St. Louis will be enriched by a bequest of $100,000 from the estate of the late Wm. Barr, founder of the Wm. Barr Dry Goods Company in St. Louis. This money is to be used exclusively for the benefit of the Manual Training Department of the University.

In addition to the money bequeathed to Washington University, bequests were made to other St. Louis institutions as follows: St. Luke's Hospital, $10,000; St. Louis Children's Hospital, $10,000; Episcopal Orphans' Home, $10,000; Protestant Orphans' Home, $5,000; St. Mary's Infirmary, $5,000; Bethesda Home, $5,000; Memorial Home, $5,000; Home of the Friendless, $5,000; Blind Girls' Home, $5,000.

SYSTEMATIC ORGANIZATION IN KANSAS CITY.

The Jackson County Medical Society has taken up systematic methods of organization, following the plan of the Chicago, Philadelphia and St. Louis medical societies, and dividing the county into districts. A representative from each district has been appointed on the general organization committee, thus forming an organization committee of twenty-seven, one for each ward in Kansas City and Independence, and one for each township in the surrounding country. The secretary, Dr. E. L. Stewart, has begun the compilation of a card index of all the physicians of the county, and is endeavoring to obtain personal data regarding all members of the profession in the county. Without doubt, the work in Jackson County will be as productive of good results as that in the other large cities which have adopted this method.

SCHOOL HYGIENE.

The *Journal of School Hygiene* is a new publication, the first number of which has just been published. One of the objects of the Journal is to present the methods in use in this and other countries and the results obtained, in the work of improving the hygienic conditions of schools, and to awaken public interest in the importance of this subject. The Journal is issued by the American School Hygiene Association which numbers among its officers many eminent physicians.

The Journal deserves and should receive the earnest support of all physicians who are interested in this phase of medical endeavor,—and, practically, that includes every practicing physician in the country,—and will be a source of authoritative information concerning the means and measures advocated and adopted in all parts of the world to improve the hygienic conditions of school life. The continuance of its pub-

lication will depend entirely upon the subscription list, as it is not intended that it should be, commercially, a money-making venture. The subscription price is 50 cents per annum, this low rate being fixed so that every one who is interested in the objects of the Association may subscribe without hardship. The Journal is edited by Dr. George S. C. Badger, 48 Hereford street, Boston, Mass., to whom all communications should be addressed. Papers and discussions of questions bearing on the subject of school hygiene are solicited.

NORTH MISSOURI MEDICAL ASSOCIATION.

This Association met at Moberly, June 18th and 19th. About sixty-five physicians of the northern section of the state attended the meeting and were cordially entertained by the local profession.

Quite a number of interesting papers were read and the discussion upon these was spirited and full of helpful comment.

The following officers were elected: President, Dr. E. C. Grim, Kirksville; first vice-president, Dr. W. L. Brosius, Gallatin; second vice-president, Dr. G. O. Cuppaidge, Moberly; treasurer, Robert Haley, Brookfield; corresponding secretary, Dr. E. C. Callison, Kirksville; recording secretary, Dr. Oliver McEuen. Judicial Council: Dr. J. D. Brummall, Salisbury; Dr. C. B. Clopp, Moberly; Dr. H. C. Dixon, Holiday; Dr. W. L. Peters, Cameron; Dr. Woodson Moss, Columbia.

NEW AND NON-OFFICIAL REMEDIES APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

Lecithin Solution (Fairchild Bros. & Foster).
Lecibrin (Fairchild Bros. & Foster).
Glycerole Lecithin (Fairchild Bros. & Foster).
Casca-Laxative (H. K. Mulford Co.).
Bismuth Hydrate Comp. (H. K. Wampole & Co.).
Liquor Sedans (Parke, Davis & Co.).
Liquor Sedans without Sugar (Parke, Davis & Co.).
Liquor Sedans with Cascara (Parke, Davis & Co.).
Capsules Glycerophosphates Comp. (H. K. Mulford Co.).

Isoform Powder (Koechl & Co.) having been withdrawn from the market, has been omitted from the list of articles accepted for New and Non-Official Remedies, at the request of the American agents.

Investigations made under the direction of the Council having demonstrated that the claims made for Isopral (Farbenfabriken of Elberfeld Co.) are not justified by the facts, the Council has voted to omit this article from the list.

IN MEMORIAM.

DAVID COALTER GAMBLE, M. D.

David Coalter Gamble, was born in Saint Louis, September 16th, 1844. His father, Hamilton Rowan Gamble, was an eminent jurist and some time Secretary of State for Missouri, Chief Justice of the Supreme Court of Missouri, and Governor of Missouri during the period of the Civil War. His mother, Caroline Coalter, of Charleston, South Carolina, was a gentlewoman of quiet but strong personality, whose characteristics were markedly developed in her son.

Dr. Gamble's preliminary education was secured in Wyman's School, then in Saint Louis, later in Alton, Ill.; in Lawrenceville, N. J., and Norristown, Pa. He attended the Washington and Jefferson College and later the Saint Louis Medical College from which he obtained his medical degree in 1869.

From the medical school he entered private practice in which he was continuously and successfully engaged up to the time of his death. His interest in medicine was definitely otologic in character and his practice was confined to this branch.

On December 22nd, 1864, he married Flora Matthews, of Saint Louis, from which union have been born thirteen children. Mrs. Gamble and eleven children survive him.

During the early '80's, conjointly with Dr. E. C. Dudley, of Chicago, Dr. Gamble edited the *Saint Louis Medical Review*. He was a charter member of the Faculty of the Beaumont Hospital Medical College, holding the chair of Otology. This chair he occupied until he resigned therefrom in 1890.

He was appointed Chief of the Clinic for Diseases of the Ear in the Policlinic Hospital in 1890. In 1892 he was appointed to the chair of Clinical Professor of Diseases of the Ear in the Missouri Medical College. In 1899 when the Missouri Medical College coalesced with the Saint Louis Medical College to form the Medical Department of Washington University, Dr. Gamble filled the two positions in the University which he had hitherto held in the former school. At the time of his death he was Clinical Professor of Otology in the Medical Department of Washington University, Clinical Professor of Otology in the Washington University Hospital Dispensary, member of the staff, Department of Otology, Washington University Hospital;—also, since 1893, Attending Physician, Diseases of the Ear at the Martha Parsons Hospital.

Dr. Gamble was a member of the Alumni Association of the Medical Department of Washington University, Saint Louis Medical Society, Missouri State Medical Association and the American Medical Association.

An omnivorous reader and lover of books, he spent freely the midnight oil, his mind browsing contentedly, the while, among the writings

of English, French and German worthies; while for deeper and more stimulating draughts he quaffed the Phalernian of the Latin classics.

Some five or six years ago gastric hemorrhage with tarry stools led to the thought of a possible gastric cancer,—this however was finally negatived and the diagnosis of a gastric ulcer was made. Since which time although his general health might be said to have been fairly satisfactory,—gastro-intestinal disturbances were observed to occur,—rather more frequently during the past three or four years.

About May the first he was not feeling up to the mark,—he continued, however, his usual work. On the third he felt considerably better,—the night of the third brought anginal pains, radiating to the shoulders and arms. These had markedly ameliorated by the morning of the fourth. His physician recommended that he remain in bed but he retorted that as he had been obliged to miss several days from his clinic he must go to the Hospital,—that he expected a class to be in attendance,—he must not disappoint them,—his office he was willing to miss,—but he must be at his clinic. He remained at home, dressed, pending his clinic hour; and was able to assure his family at various times during the day that he was better,—was reasonably comfortable. Shortly before 3:00 p. m., following an insignificant exertion, acute cardiac dilation developed,—and the end came,—May 4, 1908.

He loved his profession, he loved and, through his profession, faithfully served his fellowmen;—how many of us, think you, at the age of 64, will conduct a daily clinic averaging two hours of hard work, for the sheer love of it? His relation to his clinical assistants was of the warmest character, and they loved him; he delighted not only in working with them and helping them; but daily rejuvenated himself by contact with their keen young minds. Yet he was no basil feeding on the brains of men; for, in recompense, he gave richly of himself and the choice wealth of his long years of clinical experience.

The world needs men of the fashion of David Coalter Gamble. It is a proud and truthful tradition that medicine has always numbered such among her sons,—the very salt of the earth. "Thou must be like a promontory of the sea, against which, though the waves beat continually, yet it both itself stands, and about it are those swelling waves stilled and quieted."

Resolved:—That the Saint Louis Medical Society recognizes the severe loss sustained in the death of Dr. David Coalter Gamble.

Resolved:—That a copy of this Appreciation and a copy of these Resolutions be spread upon the Minutes of this Society, a copy published in *The Weekly Bulletin*, and a copy forwarded to the family of Dr. Gamble.

Norvelle Wallace Sharpe, Chairman.
William Shirmer Barker,
Robert Barclay,
The Committee.

[An abstract of resolutions adopted by the St. Louis Medical Society.]

JOSEPH BERNHARD ROSS, M. D.

Dr. Joseph Bernhard Ross was born July 1st, 1857, at Muenster, Westphalia, and died there April 14th, 1908.

He studied medicine and received his degree at Greifswald, and after further study at Berlin, served for a time as surgeon in the Prussian Army, and on board a passenger ship.

In 1887 he located in Melbourne, Australia, where in 1888 he was married to Miss Lillie Beere.

In Australia he devoted himself largely to surgery in which branch of practice he was very efficient, at the same time doing a great deal of original work in pathology and bacteriology. In 1892 he returned to Germany, studying at Tubingen, Hamburg, Stockholm and Berlin, afterwards visiting Paris and London, and returned to Australia in 1893.

He found that the panic of that year had caused him serious financial losses, and so disorganized business as to cause it to seem inadvisable for him to remain, so he came to America and located in St. Louis, where the remainder of his professional life was passed.

Early in the present year, failing health caused him to return to Germany for treatment and change of climate.

This proved unavailing, however, and he died at the residence of his brother in Muenster, the city of his birth.

Dr. Ross was a man who had added to the thorough training of the German Schools the products of a close study of medical literature, of original research and study and observation of cases in practice.

He had a truly scientific mind, applying in his practice all the resources that the advance in medical knowledge has made available, not with the mere design of satisfying a scientific curiosity, but with the object of applying the knowledge thus gained to the alleviation and cure of the afflicted. In this he was unusually successful. He was an able diagnostician and skillful therapeutist and surgeon, and not overlooking the individual in the patient, he was to his patients a loved friend as well as a trusted physician. In recognition of the loss which the medical profession and the community has sustained by reason of his untimely death, your committee offers the following resolutions:

Whereas, it has pleased Providence to remove from our midst Dr. Joseph Bernhard Ross, a man who was respected and honored for all his scientific attainments, high personal character and useful activity professionally; therefore be it resolved;

That in his death the St. Louis Medical Society has lost a useful and honored member, and that the Society hereby tenders its sympathy to his bereaved family.

Resolved, that a copy of these resolutions be sent to the family of the deceased. Respectfully submitted,

F. J. Lutz,
A. H. Meisenbach,
M. W. Hoge,
The Committee.

[Resolutions adopted by the St. Louis Medical Society.]

CORRESPONDENCE

WAR AGAINST TUBERCULOSIS.

To the Editor:

In answer to your request for information concerning what is being done in our state, in the crusade against tuberculosis, I beg to submit, in brief, the following:

In the State.—The Missouri State Sanatorium for Incipient Tuberculosis, was opened last August. The State has already appropriated $185,000.00 in addition to which there have been liberal private grants. It is located at Mt. Vernon, on the southern slope of the Ozarks, two pavilions are finished, and the executive building and power house are under way. The present capacity is forty. With each new building from thirty to forty more can be accommodated.

The Sanatorium has been a large factor in the educational work in the State. So far as may be judged from ten months' experience, the results are much better than were expected. A Tuberculosis Sanatorium, at Springfield, is being planned by the local society and already $15,000.00 is available. It is reported that a private Sanatorium is building at Mt. Vernon, and $8,000.00 was subscribed by individuals to start the plans.

Local organizations have been effected at Kansas City, St. Joseph, Springfield, Cape Girardeau, Owensville, Jefferson City, Fayetteville, Tipton, New London and St. Louis.

The State Society for the Prevention of Tuberculosis, under the presidency of Dr. Homan, is doing good, educational work.

In St. Louis.—The St. Louis Society for the Relief and Prevention of Tuberculosis was organized in 1905. Its work has been largely educational and relief. 250,000 leaflets and cards have been distributed and stereopticon lectures in school yards were given to 65,000 people. In addition Tuberculosis exhibits and lectures were held in a number of churches and halls. A total number of 58 meetings constituted this part of the work for 1907. Exhibit displays were arranged for show windows on prominent down-town corners. The Society employs two visiting nurses, whose reports show nearly 5,000 visits, or about 400 each month.

A special tuberculosis clinic is held by the health department and by many hospitals. A site for several acres of beautiful ground in the western part of the city has been secured for a special hospital for tuberculosis, by the St. Louis Society. This will probably be open in July.

One of the long steps forward, taken by St. Louis, in the active work against tuberculosis, is the law which makes it compulsory for physicians to report each case of tuberculosis to the board of health. These reports are kept under lock and key, but it is required that the

house be fumigated so soon as the patient is removed. By this means much is accomplished in fighting the disease, especially in the tenement districts. The anti-spitting law is being fairly well enforced, and it is a fact, that the fines more than equal the amount of the salaries of the special officers employed under this act.

Mt. St. Rose Hospital for Consumptives, has cared for 1,600 patients in five years. Its capacity is soon to be doubled. In the new addition there will be a larger laboratory, a small amphitheatre and an operating room.

The Municipal Commission on Tuberculosis, appointed by the Mayor under a city ordinance, passed at the request of the St. Louis Society for the Relief and Prevention of Tuberculosis, is organized to investigate the prevalence of the disease in St. Louis, and to recommend measures for its limitation.

A careful revision of the above will convince the reader that Missouri is well to the front, and in some respects in advance, in the organized state and municipal work in the limitation and relief of tuberculosis.

WM. PORTER, M. D.

SPRINGFIELD, MO., April 30, 1908.

TO THE EDITOR:

At the meeting of the Southwest Missouri Medical Society, held at Springfield, April 23d and 24th, the following report on medical legislation was presented by the Committee on Public Health and Legislation.

The report was unanimously adopted by the Society, and it was ordered that a copy be sent to the State Medical Journal with a request that it be printed in the next issue of the JOURNAL.

Yours Truly, H. S. HILL, M. D.,
Secretary Southwest Missouri Medical Society.

REPORT ON MEDICAL LEGISLATION.

The problem of medical reciprocity with Missouri and the other states of the Union, seems to be moving toward a satisfactory solution. An item of vast importance was taken into account when our State Board of Health set a standard for accredited medical schools. We hope advancement will be made until some proper standard of medicine shall have become general throughout the Union, or our Federal government shall have given us a satisfactory pattern for adoption in all the states.

Next to the problem of meeting the requirements for gaining permission to practice medicine legally, comes that of proper compensation for services rendered. There is no reason why the state should require so high a grade of qualifications and be so exacting of services of physicians and at the same time grant so little in compensation. The profession is willing, however, to meet the state's high requirements; now let the state do its duty to the profession. The state owes it to the profession of medicine to allow a better way of collecting bad debts than now obtains, and to bear at least half the burden of caring for the

penniless sick. We sincerely hope that neither the state nor the profession will allow this inequality to longer remain uncorrected. Both will gain materially by the change,—the state in services for its poor, and the profession in the gratuity long overdue and the tangible wherewithal to meet the last half of unpaid bills.

Considerable advancement has been made in the laws governing the criminal practice of physicians, but there yet remains some things to be done in the way of law-making to close up the loopholes in the net the state is spreading for this class of criminals.

We are indebted to Mr. John L. McNatt of Aurora, County Attorney of Lawrence County, for assistance in preparing a digest of the laws governing the criminal practice of physicians in Missouri. These laws we find about as follows:

SYNOPSIS OF LAWS GOVERNING THE CRIMINAL PRACTICE OF PHYSICIANS.

The law regulating criminal practice of physicians in this state first became noticed by the legislature of this state in 1855, which provided that any person who should administer to any pregnant woman any medicine, drugs or other substances for the purpose to promote or procure the death of a quick child, or destroy the same, should on conviction be guilty of manslaughter in the second degree, which was made a penitentiary offense.

This same statute in substance remained in force until the provision of 1901, wherein the legislature attempted to make by new statute the act of abortion manslaughter, regardless of whether the child was quick or not. This Section is known as 1825 R. S., 1899, and was repealed by said act of 1901, Session Act, 128.

It will be seen by referring to Sec. 1825 of 1899, which was repealed by Session Act of 1901, that it was not a crime under that Section unless the child was quick within the legal definition of "quick child," which was according to the court definition different from that recognized in the medical profession, in that the child is not regarded as quick, at the common law, until maturity of same was such as to create a motion.

The Act of 1901, as above mentioned, was by the court of this state held to be unconstitutional on the ground that it provided that manslaughter, as known to the law, could not be without there was death of some person in being, and the Act providing that at any stage of gestation would be the offense of manslaughter, the court held such could not be under the definition of quick child; for instance, there could be no manslaughter where the child is not quick, therefore, the law is invalid.

We also have another statute known as Sec. 1853, which has been on the books since about 1865, with practically no change, which makes it a misdemeanor for any person to administer to any pregnant woman any medicine or drug whatever, for the purpose of procuring an abortion or miscarriage, unless the same shall be necessary to preserve the life of the woman, and shall be advised by the physician to be

necessary, makes the act, regardless of the stage of maturity, a misdemeanor, which, of course, only carries with it a jail sentence and a fine as the maximum punishment.

This Section also adds that in case the woman should die, it shall be manslaughter in the second degree, and, of course, carries with it punishment in the penitentiary.

You will see, therefore, that up to this time, to-wit, prior to the legislature enactment of 1901, there was no valid law in the state of Missouri, making it a felony to commit abortion, but it was only a misdemeanor, unless the state of maturity of the child was such as to be regarded as quick, and that after the repealing of Section 1825 by Session Act of 1901 and since said act having been held invalid by the Supreme Court, it left practically one statute, the one for misdemeanor, known as 1853, R. S., 1899.

The last legislature, however, realizing the condition of the law governing the legal practice of this character, passed a law which governs the whole field of abortion, makes it very broad in its application as to the distinction of quick and unquick child, and makes the abortion or miscarriage, or either, a felony; also provides for the revoking of any physician's license upon presentation to the State Board judgment of conviction of any physician in this state.

This act was provided March 20, 1907; this act certainly is sufficient in definition and application of this crime to cover almost any kind of device that might be resorted to by any person to bring about abortion or miscarriage.

The same legislature, realizing the difficulty of proving the cases of this kind, also passed an act requiring the testimony of physicians who may have been called in attendance in such cases, also making the dying declarations of any woman competent in prosecution of any medical practitioner who has had criminal operation upon her. Under the criminal law as the case stands, with this aid of having thrown off the confidential relations which exist between the patient and physician, we can only think of one more item that can be added to Sec. 3635 R. S., Session Acts of 1907, viz.: That in all prosecutions of criminal abortion to compel the woman to give testimony of the facts in her knowledge, and offering her absolute immunity from prosecution, as in the law she is really a party to the crime. By doing this, the evil practice of this character would soon be blotted out. We again recite that the acts of 1907 with the suggested change, seems ample to cover all cases of this character, and we know of no means or device that could be resorted to by physicians to relieve them from the liabilities of this statute, if we can get testimony sufficient to authorize conviction.

The law as it now exists is plain and with the addition of compelling the woman to testify we think the legislature of the state has done all within its power to punish people offending against the statute.

In regard to the State Board of Health, will say that the statute provides for the creation of a State Board of Health and that before

this Board of Health all physicians must make satisfactory proof of their qualifications and moral character before certificate is issued to them.

Up to 1903, this Board had very limited power regarding their authority to inquire into and revoke certificates of physicians after having been granted; and in 1903 their power was enlarged by legislative enactment so that now unprofessional conduct of any physician upon a charge being made to the Board can be investigated and the Board may revoke the license of such physician, after giving such physician opportunity to be heard before the Board.

Among the acts that are especially named in the law to be sufficient to revoke the license, is "habitual drunkenness, or excessive use of narcotics, or producing criminal abortion." However, the statute says this does not exclude any other acts, but that any other immoral act is sufficient for revoking license.

It would seem that this board has no statutory authority to compel attendance of witnesses, nor are they bound by any technical rules of law governing any kind of evidence to be used.

Their action for revoking certificates can also be reviewed by the Circuit Court, provided the complaining party files an affidavit as required by the statute, and in the County where the hearing was had, the Circuit Court will hear and try the case *de novo*.

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However, in view of the other statutes, if the Board should have damageable testimony of immoral character and unprofessional conduct, the case would always be made [illegible] the Circuit Court against the practitioner, because the evidence could be compelled and forced, thus giving an opportunity to secure evidence that could not be secured before the Board.

There could be a statute enacted by the legislature, authorizing and giving this Board power of subpœna, and contempt for disobedience to any order made by them with reference to testimony. Also to authorize the employment of counsel, who should represent the Board in all matters, to be paid out of the general fund, or a fund to be created for that purpose, either as a salary or fee. It should also appear from the statute that when any party files affidavit alleging any unprofessional act of any physician it should be compulsory on said Board to call a meeting and have a trial and hearing and providing only that a rehearing of the case could be had on *certiorari*, and that review would only be submitted on the record as made by the Board, and no testimony from either side be permitted, except what was contained in the transcript, or that had before the Board.

The profession has been interested in—

1st:—An act to collect vital and mortuary statistics.

2nd:—To divorce the examining from the licensing Board.

3rd:—To restrict and limit time for filing damage suits.

4th:—To appoint local Boards of Health by the State Board.

5th:—To prevent corporations from practicing medicine.

The 5th has already been disposed of satisfactorily by court decision. The 2nd, that relating to separation of the examining and licensing power, is receiving attention of the American Medical Association, and should await the report of the committee having it in charge. The 3rd, relating to time of filing damage suits, is of minor importance as compared to many other things in the list of needed legislation, and particularly an act that would open wider the scope of authority and usefulness of the Board of Health for practicing sanitary science. Were the duties of the Board properly enlarged in this particular, the 1st and 4th, those relating to vital statistics and local Boards of Health, will have been cared for. It is to be hoped that another general assembly will not have adjourned before placing the Board of Health in this woefully neglected field, to perform, unshackled, duties that are to be of such incalculable benefit to the people of the state.

To recapitulate as to our wants:

1st. Let us ask for one law to aid us in the collection in one class of bills, and another to reimburse us for half of our professional contributions to charity.

2nd. Let us have an amendment granting immunity to the woman in criminal abortion cases and compelling her to give testimony of all she knows.

3rd. Let us have an amendment, in trials for revocation of certificates, empowering the Board of Health to punish for all contempt of its court, and to employ legal counsel; and divesting it of its option to try cases when charges have been preferred; another amendment should restrict rehearing to *certiorari* only, and review to the records, without resubmission of testimony.

4th. Let us ask that laws be passed making the Board of Health the agents of the state for the dissemination of hygienic and sanitary measures,—the officers for the enforcement of sanitary laws.

It will be a duty we as members of the profession owe to ourselves, our people and to the state, to have, so far as lies in our powers, none but good and philanthropic men elected to membership in both houses. Our cause and welfare of the people will have just consideration at a law-making conference of good men.

It is not best to ask too much after so extended a period, in which so little was sought; we should demand a few good laws at a time and they should be carefully drawn at first, and amended later whenever and wherever time or enforcement finds them defective.

It is the duty of every physician to take deep interest in all proposed medical legislation and when the profession thus gives the matter the attention its importance demands "our pity, our sympathy, our indignation, our enthusiasm, and our charity will be translated into written laws to be preserved and to be continuously operative."

A. H. Madry, M. D., Chairman.

COUNTY SOCIETY NOTES

CALDWELL COUNTY MEDICAL SOCIETY.

The Caldwell County Medical Society met in Polo, April 15th. Present, Drs. C. O. Dewey, W. T. Lindley, S. D. Smith, G. B. Cowley, R. L. Mount, R. K. Dodge, T. W. Scanlon, Tinsley Brown, W. S. Shouse, J. E. Gartside, H. DaLamater, H. A. Schroeder, G. S. Dowell, C. L. Woolsey and G. W. Goins, and visitors Drs. A. W. McArthur and D. L. Shumate, of Kansas City, by invitation.

Dr. G. W. Goins read a paper on "Cerebrospinal Meningitis," Dr. G. S. Dowell one on "Congenital Talipes Equinus Varus," Dr. D. L. Shumate one on "Treatment of Chronic Dacryocystitis," Dr. A. W. McArthur one on "Some Considerations Regarding the Treatment of Fractures in the Neighborhood of Joints, and Report of Three Cases." Dr. R. L. Mount reported a case of rapid development of tuberculosis of humerus, and Dr. J. E. Gartside gave a talk on "The Quarantine of Contagious Diseases."

The next meeting will be held in Cowgill in July.—TINSLEY BROWN, M. D., Reporter.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting at Jackson, June 5th. In the absence of the president and the secretary, Dr. Atkins acted as chairman and Dr. Vinyard as secretary.

Program: Dr. Henderson read a paper entitled "Pathology and Treatment of Acute Endocarditis;" Dr. Vinyard followed with a paper entitled "Symptomatology and Diagnosis of Chronic Endocarditis." There was a liberal discussion on both papers and the authors were complimented for the care and attention given the subjects treated of. Dr. Frisler was invited to take part in the discussion and his name was submitted to the board of censors for approval for membership.

On motion the Society adjourned to meet at Jackson July 3rd.—E. H. G. WILSON, M. D., Secretary.

CHARITON COUNTY MEDICAL SOCIETY.

The regular meeting of the Chariton County Medical Society was held at Salisbury, May 14th. Nine members were present.

Dr. Tatum stated that the steel pin in the hand of the lady (as presented by him in a clinic at our last meeting) had been located by the x ray and removed, the patient making a good recovery.

Two interesting cases were presented. These were examined and the conditions discussed by the members present.

Dr. Gaines read a good paper on appendicitis, which was complimented and well received. The doctor gave a tabulated statement of twenty cases operated on, with a mortality of two or three per cent. Pus was found in all the cases. Dr. Gaines commences the treatment by a brisk dose of calomel, followed by Epsom salts, afterward some opiate to procure rest, restricted diet and food per rectum. The members generally endorsed Dr. Gaines' treatment.

Adjourned to meet at Brunswick on June 11th, 1908.—C. A. JENNINGS, M. D., Reporter.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF APRIL 24TH.

The program for the "Post Graduate Course" was received and accepted by the society.

Dr. Fulton read an interesting paper on "Hemorrhoids." He said we should first make a careful examination and a correct diagnosis then, if possible, remove the cause. Portal congestion is one of the most common causes. The treatment at first, should be palliative. External piles usually yield to simple measures but the treatment of internal piles may call for surgical treatment. Drs. Boyd, Coffelt, Patterson and Tefft discussed the paper.

MEETING OF MAY 8TH.

Dr. G. B. Dorrell, of Republic, was elected to membership in the society.

Dr. C. S. Neer read a very interesting paper on "Comatose Pernicious Malaria. He said that in the comatose form the diagnosis is very important because of the effect of the early institution of correct treatment. In the majority of cases the aestivo-autumnal parasite occurs. The coma depends on the parasites present, the amount of toxin secreted by them, and their location in the brain. It usually occurs in warm weather in persons who have suffered from malaria and have not been properly treated.

It is a severe malarial infection with changes in the spleen, liver and kidneys, but the most striking change is in the brain where actual thrombi of malarial parasites may occur, blocking the capillaries.

Coma may come on suddenly or develop gradually during a paroxysm of fever; death usually occurs with symptoms of cardiac insuffiency and the end may come suddenly or unexpectedly; the limbs are usually relaxed but irritative motor symptoms occur.

Previous history helps to make a diagnosis, but usually an examination of the blood is necessary. This disease may be mistaken for cerebral apoplexy, sunstroke and uremia. The prognosis is always grave. In the treatment quinine is given hypodermatically in large doses.

Drs. Tefft, Rienhoff, Dewey, Terry, Ralston, Smith, Patterson, Watson, Barnes, Woody and Coffelt discussed the paper.

SPECIAL MEETING MAY 15TH.

The Society instructed the delegate to vote for the medico-legal committee in State Association.

In the "Post-Graduate Course," Dr. W. M. Smith gave a lecture on "Preventive Medicine."

MEETING OF JUNE 5TH.

Dr. J. E. Tefft gave a lecture on "Fractures," in the "Post-Graduate Course."

MEETING OF JUNE 12TH.

Dr. Ralston, of the Library Committee, reported that the Society had already received an addition to our Library from The Journal of the State Medical Association, and were expecting more books from St. Louis which would make us a library of several hundred volumes and necessitate more room. The society voted to move the library to more commodious quarters in the Carnegie Library Building.

The subject for discussion was "Feeding and Care of the Infant." Dr. Barnes opened the discussion and was followed by Drs. Smith, Cox, Ralston and Boyd.—J. L. ORMSBEE, M. D., Secretary.

HENRY COUNTY MEDICAL SOCIETY.

The Henry County Medical Society met on Wednesday, June 24th. Members present: Drs. Britts, Blackmore, Beaty, Berry, McNees, Shankland, Peelor, Kunkler, Derwent, Gibbons, Haire and Grady.

Dr. J. W. Berry reported an interesting case of a man aged 45 years. The case ran an acute course, with symptoms of intense headache and earache, cough, expectoration, and vomiting, and died within forty-eight hours.

Dr. T. A. Blackmore presented a patient, a boy of 8 years, who had passed through a severe siege with typical symptoms of pneumonia, at first, and later developing pleuritis and an abscess. The patient made a good recovery and gained 25 pounds.

Dr. W. H. Gibbons related a case of pleuritic effusion in a boy of 7 years. Resection of a rib was followed by complete recovery.

Dr. E. C. Peelor reported a case of hip joint trouble that was relieved by extension.

Dr. R. D. Haire made a report of the annual meeting of the State Association and stated that much good work had been accomplished, particularly the establishment of a defense fund for protecting the members against civil malpractice suits.—F. M. DOUGLASS, M. D., Reporter.

LAWRENCE-STONE COUNTY MEDICAL SOCIETY.

The Lawrence-Stone County Medical Society met at Aurora, June 3rd. It was apparent at opening that attendance would not, on account of interest in the State Association meeting just closed, the American Medical Association then in session and other society meetings, be up to the average nor the program attract so much interest.

Dr. Madry, as delegate, made a report of the work done by the House of Delegates of the State Association.

The President, Dr. D. M. Huffman, delivered his address to the society. This address was one calculated to spread the cement of brotherly love and to beckon to a higher plane of ethics and professional usefulness.

Dr. J. A. Harris was called to present his paper, but asked to be excused from reading the paper assigned him on account of a misunderstanding. He delivered a talk on the suggestions in the President's address, giving admonitions and advice in keeping with the spirit of the address. He thought the medical profession ahead of everything on earth for doing good to our fellowmen, though our individual usefulness was often crippled by unkind remarks, unjust criticism and evil words, when spoken by a brother. The nobility of the profession should prompt us to nobler deeds and words to and for each other.

In an informal discussion of things pertaining to the general interest of the society, the Secretary suggested that a program be planned for a year in advance. This met with as much opposition as support, members of the program committee being found on both sides of the proposition. Dr. Fleming offered as a solution to the problem, that a little more activity be injected into the committee; this he thought would insure all the success that could come to the Society from the make-up of the program and the attendance of those appointed to read papers.

On motion the Society adjourned to meet at 1:30 p. m.

AFTERNOON SESSION.

Dr. E. E. Goodrich read a paper on "The Alkaloidal Treatment of Appendicitis." The doctor advocated the use of calomel followed by a saline laxative, after which he administered hyoscyamine. He thought better results had been obtained by this plan of treatment than by others. Dr. Huffman in discussing the paper said he had had experience with between thirty and forty cases in which hyoscyamine had been used, and all except three had recovered without surgical interference. He first flushed the bowels, if called early, with a saline laxative; if called late he employed warm enemata to flush the colon and relieved the pain with opiate until he could get the physiological effect of hyoscyamine.

Dr. Harris in opening the general discussion, said the treatment did not appear to be altogether alkaloidal, as calomel and salts were used in the beginning and other agents were also used in the treatment; that the majority of cases got well if left alone. He had no confidence in medical treatment and believed the time to operate was when a positive diagnosis had been made; that more of the cases should be treated surgically. He

did not believe a saline laxative should be given as salts were too much disposed to balloon the bowels. He preferred calomel, followed by castor oil.

Dr. Terry said the theory was that appendicitis was a surgical disease and whether to operate or not depended upon whether or not the diagnosis was made out as catarrhal. He advised operative interference in all forms except the catarrhal, but admitted that probably all kinds usually started as catarrhal. He noted the difficulty in making a differential diagnosis in most cases, but said the catarrhal was much the most frequent form and tended to recovery. He was not in favor of operation during the acute stage, and stated that mistakes would be made if we always operated, but perhaps less if we never operated. He considered operations dangerous on account of the morbid anatomy resulting from the adhesive inflammation. He followed Ochsner in allaying vomiting and relieving pain by washing out the bowels and, in suitable cases, the stomach also, withdrawing all food which leaves considerable residue. Dr. Goodrich's plan he considered a good one but whether or not to give a cathartic would depend on the individual case.

Dr. Fleming stated that the class of cases that demanded operation during the acute stage recorded a high mortality. He agreed with Dr. Harris that we ought to be ready to operate at any time, but disagreed as to operation always as soon as a diagnosis had been made. He advocated operating after the acute stage had passed.

Dr. Madry believed it a surgical disease but did not consider operation necessary in most cases. He thought all agreed as to surgical treatment but that each spoke of a particular stage or kind and under ideal conditions. We have to take the cases as we find them and do what in our judgment we believe best to be done.

Dr. Huffman said that early in the attack the condition would be ideal for operation but should this time pass, the consent of the patient ought to be obtained to operate soon after.

Dr. Terry wished to say further that he was in favor of an early operation if the condition was ideal. He considered that within the first twenty-four hours was a good time but from forty-eight hours to six days was the most dangerous and the most troublesome period for an operation, and was marked with greatest mortality; this he regarded as due to the adhesions and infiltrations.

Dr. Goodrich in closing said his locality demanded medical treatment first; that the profession was divided as to whether the bowels should be opened or locked up; he was taught to "lock up."

Dr. Miller reported two cases of parotitis complicating typhoid fever, and Dr. Shelton two cases occurring in a family of five, all of whom were convalescing from typhoid fever. All the cases went on to suppuration and were treated symptomatically. All recovered.

It was voted that the next meeting be an open meeting to which the public be invited and that it be held at Aurora.—A. H. Madry, M. D., Reporter.

MONITEAU COUNTY MEDICAL SOCIETY.

The regular meeting of the Moniteau County Medical Society was held at Tipton, June 11th, with an afternoon and evening session.

The members present were Drs. J. M. Robertson, H. Freudenberger, J. H. Lang, G. S. Wilson, J. P. Burke, W. R. Patterson, J. B. Stewart, J. B. Norman, S. H. Redman, J. W. Marsh and L. L. Latham. Visitors present: Drs. Harry Marsh, W. H. Reynolds, W. H. Elliott, John Taylor and R. O. Reser.

The regular session was held in the afternoon. Dr. Harry Marsh read a paper on epilepsy. Dr. J. B. Burke reported a case of peritonitis. Dr. J. M. Robertson and Dr. J. W. Marsh each presented a clinic.

The evening session was held at the Baptist church and was open to the public. Dr. S. H. Redman read a paper entitled "Tuberculosis a Communicable Disease," and Dr. J. B. Norman followed with a talk on "Society's Responsibility for Consumption." This meeting was well attended by the citizens, who manifested great interest in learning the best methods of precaution in preventing the spread of the "White Plague."

The next regular meeting of the Society will be held Thursday, September 10th, at Tipton.—W. R. Patterson, M. D., Secretary.

MONROE COUNTY MEDICAL SOCIETY.

The Monroe County Medical Society enjoyed an interesting session at a special meeting held in Paris, May 14th, the following members being present: Drs. Southern, T. B. Loyd, W. B. A. McNutt, F. M. Moss, D. McGee, C. H. Dixon, J. E. Brown, H. C. Payne, G. H. Cassity, M. E. Leusley, J. C. Maddox, H. G. Schobe, M. C. McMurry, J. A. Furnish, G. M. Ragsdale, W. T. Bell. There were also present visitors from without the county, Drs. M. W. Meyer and G. L. Noyes, Columbia; H. C. Vaughn and B. F. Singleton, Shelbina; D. C. Gore, Marshall; J. C. Chilton, Hannibal; T. A. Roselle, Palmyra; G. A. Johnson, Moberly; M. B. Austin, Brunswick; J. Q. Cooper, Rowena, Mo.

Dr. D. C. Gore read a paper on "The Doctor as a Citizen." The paper was well prepared and full of interesting points for discussion.

The paper by Dr. Roselle on "Diabetes in Children" was well received. The importance of more frequent examinations of the urine was emphasized, and several cases reported.

An interesting talk on the subject of "Extrauterine Pregnancy" was made by M. W. Meyer, illustrated by pathologic specimens.

Dr. Cassity read a paper on "The Home Treatment of Consumption." The importance of the open air treatment and rest during the febrile stage was urged.

At the conclusion of the above program the last, but not least enjoyable, feature of the day was the banquet which was followed by the usual flow of oratory.

Next regular meeting will be held at Paris, July 7th, at 2 p. m.—W. T. Bell, M. D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY.

The Platte County Medical Society met in Platte City on June 3rd, with the following members present: Drs. Swaney, F. M. Shafer, Coffey, Mizener Naylor, Herndon, Redman and Clark.

Dr. Clark read a paper on "Artificial Feeding of Infants," which was illustrated by a chart. The subject was freely discussed by all present and many points of interest were brought out. Motion made and seconded that Dr. Clark read his paper before the Clay County Medical Society, which meets at Smithville.

The Society adjourned to meet again next month.—F. M. SHAFER, M. D., Secretary.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY.

The Ste. Genevieve County Medical Society held its regular monthly meeting June 10th.

The application of Dr. F. M. Vessels, of Perryville, for membership, was presented and on motion rules were suspended and he was made a member by acclamation.

No further business appearing, the Society adjourned until the second Wednesday in July at 7 p. m.—R. W. LANNING, M. D., Secretary.

ST. JOSEPH-BUCHANAN MEDICAL SOCIETY.

Regular meeting Wednesday, May 13, the president, Dr. H. S. Forgrave, in the chair.

Drs. J. H. Lewis and C. W. Bertram were duly elected to membership in the Society.

Dr. Kenney, chairman of committee on investigation, asked for further time, which upon motion, was granted.

Dr. Campbell, a member of the committee, expressed his readiness to do his full duty at any time he was called.

The Secretary then read the instructions to the state delegates outlining the measures which they were to favor at the meeting in Springfield.

Dr. Campbell referred to the presence in this country, of Prof. Martin, of Berlin, and expressed a desire to have him visit St. Joseph as the guest of the local Society.

After some discussion, a motion prevailed to the effect that the Society extend a cordial invitation to Prof. Martin, through Dr. Campbell, to visit this city, and that a committee of five be appointed to make arrangements for his reception.

The chair appointed Drs. Campbell, J. Geiger, Fassett, Todd and Woodson.

Dr. Kenney presented a case of lupus vulgaris, treated by the Finsen light.

Dr. E. H. Bullock presented the paper of the evening, "Shall we have a Department of Health and Medicine," which was well received.

Discussed by Drs. Kenney, Wallace, Fassett, Leonard, Ferguson, Campbell.

Dr. Kenney offered a motion that we instruct our delegates to introduce a resolution in favor of a Department of Public Health at the State meeting. Carried.

The secretary was instructed to send a copy of the paper, with the endorsement of the Society, to the secretary of the "Committee of One Hundred" recently appointed by President Roosevelt.

At this hour the Society took an adjournment to the dining room, where a "Dutch lunch" was in waiting. President Forgrave occupied a seat at the head of the table, and after the good things had been disposed of, called on the various members for short talks on the "Good of the Order." Those who responded were: Drs. O. G. Gleaves, C. H. Wallace, W. L. Kenney, Fassett, Owen, Campbell. Number in attendance, 37.

SCHUYLER COUNTY MEDICAL SOCIETY.

The Schuyler County Medical Society met in Lancaster, May 5th. The following members were present: Drs. J. B. Bridges, J. H. Keller, W. F. Mitchell, E. L. Mitchell and H. E. Gerwig; visitor, Dr. Pearle Heart, from Putnam County.

Dr. J. B. Bridges read a paper on "Hemophilia." Dr. W. F. Mitchell read a paper on "County Medical Organization." Both papers were discussed by all members present.

Election of officers: Dr. E. L. Mitchell was re-elected president; Dr. J. B. Bridges, vice-president; Dr. H. E. Gerwig, secretray and treasurer.

The next meeting will be held on August 11th, 1908, at Lancaster.—H. E. Gerwig, M. D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

The Shelby County Medical Society met in Shelbyville.

Dr. Carson reported as delegate to State Association.

Dr. Dallas reported a case of goitre, which brought out a good discussion of the various forms and treatments of this disease.

Dr. Pollard presented a patient on whom he had recently operated for pterygium with excellent results.

Dr. White, candidate for representative, gave a talk on the "Local Option Law," which he advocated strongly.

Dr. Wood read a paper on "The Present Knowledge of Opsonins," which was commented on and discussed by all.

Dr. Dallas made a plea for all members to subscribe for the Journal Americal Medical Association.

This was an excellent meeting; discussions were full and free. Dr. Owen said it gave him "a feelin' down deep in his heart" for the Society, for physicians, and for medicine in general.

The following members were present: Drs. Smith, Pollard, Vaughn, Owen, Devin, Carson, Maupin, Dallas, White and Wood.—A. M. Wood, M. D., Reporter.

WEBSTER COUNTY MEDICAL SOCIETY.

The Webster County Medical Society held a public meeting on June 10th, having previously issued programs which were sent to all doctors in the county. The public was invited to attend the meeting and the object of such meetings was explained to them, viz.: that we desired to get in closer touch with the public and instruct them in sanitary and preventive medicine; and calling upon all interested to attend and help us in the great work of furthering such measures in our county.

We had an afternoon and evening session at which the following papers were read and discussed:

School Sanitation.....Dr. W. R. Beatie
Corneal Ulcers and Their Treatment.....Dr. T. A. Coffelt
The Duty of the Public to Their Family Physician.....
.....Dr. Chas. H. McHaffie
The Needed Coöperation of the Medical Profession and the Public..
.....Dr. B. T. Cantwell
The State Medical Practice Art.....Attorney J. E. Haymes
Our State Sanatorium for Incipient Tuberculosis.....Dr. E. Trimble

The meeting was well attended by the people of Marshfield and surrounding towns, and good interest was manifested in the program. Those present were invited to take part in the discussions and many responded, among whom was our representative in Congress, the Honorable Robert Lamar.

At the conclusion of the meeting steps were taken to organize an antituberculosis society for Webster County.

Our Society attended the Springfield meeting of the State Association and we are very much enthused.

We expect to take up the post-graduate work in our meetings hereafter.—W. R. Beatie, M. D., Reporter.

BOOK REVIEWS

SAUNDERS' FORTHCOMING BOOKS.

Messrs. W. B. Saunders Company, medical publishers of Philadelphia and London, announce for publication before June 30th, a list of books of unusual interest to the profession. They especially call the attention of our readers to the following:

Bandler's Medical Gynecology—Treating exclusively of the medical side of this subject.
Bonney's Tuberculosis.
Volume II, Kelly and Noble's Gynecology and Abdominal Surgery.
Volume IV, Keen's Surgery.
Gant's Constipation and Intestinal Obstruction.
Schamberg's Diseases of the Skin and the Eruptive Fevers.
John C. DaCosta, Jr.'s Physical Diagnosis.
Todd's Clinical Diagnosis.
Camac's Epoch-Making Contributions in Medicine and Surgery.

All these works will be profusely illustrated with original pictures.

BIER'S HYPEREMIC TREATMENT IN SURGERY, MEDICINE, AND THE SPECIALTIES. A Manual of its Practical Application. By Willy Meyer, M. D., Professor of Surgery of the New York Post-Graduate School and Hospital, etc., and Professor Dr. V. Schmieden, Assistant to Professor Bier, of Berlin. Illustrated. Philadelphia and London. W. B. Saunders Co. 1908.

Bier's hyperemic treatment is one of the most remarkable and valuable contributions to modern therapeusis. This new method is extensively used all over Europe and is just beginning to meet its well deserved recognition in this country, due, to a very large extent, to the efforts of Dr. Willy Meyer, of New York. The technique of the Bier treatment in general is simple enough, but the results are greatly dependent upon the exactness with which the method is applied in the individual case. The profession of the United States may feel grateful to one of the most enthusiastic and successful exploiters of Bier's method for publishing this volume, which presents in complete but concise form, the principles, various methods, indications and contra-indications of artificial hyperemia in the treatment of special diseases.

PRACTICAL LIFE INSURANCE EXAMINATIONS, with a Chapter on the Insurance of Substandard Lives. By Murray Elliott Ramsey, M. D. J. B. Lippincott Company, Philadelphia and London.

This is a very concise, interesting and instructive little book of 230 pages, yet large enough to cover the whole field clearly and practically. Special attention has been given to diagnosis and prognosis of diseases in the vital zone. The up-to-date views of the author upon heredity and causes of diseases are of supreme importance to every painstaking examiner. A valuable as well as interesting feature is the chapter on insurance of substandard lives; a close study of this will fully recompense for the price of the book.

The volume meets the needs of the life insurance examiner who desires to do the very best by the insurer as well as the insured.

UROGENITAL THERAPEUTICS: MEDICAL AND SURGICAL. By Filipp Kreissl, M. D., Chicago. Cleveland Press, 1908.

This little volume will appeal to that class of practitioners who do not care to review the whole history of the treatment of a given malady to find what the author considers the best course to pursue. It is concise, systematic and practical. Most of the 149 illustrations are good and the marginal index is a great convenience for reference work.

MANUAL OF CLINICAL CHEMISTRY. By A. E. Austin, A. B., M. D., Professor of Medical Chemistry and Toxicology in the Medical Department of Tufts College, Boston. D. C. Heath & Co., Boston.

This book was written to cover practical chemistry of the body. "It takes the student from the elements of the body, through their various stages of combination, to the finished product, man; it shows how this combination takes place and how its progress is sometimes interrupted." To the physician it offers an interpretation of laboratory findings in such a manner that he learns quickly, not only that a result presages a condition, but why it does so.

OSLER'S MODERN MEDICINE. ITS THEORY AND PRACTICE IN ORIGINAL CONTRIBUTIONS BY AMERICAN AND FOREIGN AUTHORS. Edited by William Osler, M. D.; Regius Professor of Medicine in Oxford University, England, etc., assisted by Thomas McCrae, M. D., Associate Professor of Medicine and Clinical Therapeutics in the Johns Hopkins University, etc. Volume IV. Illustrated. Philadelphia and New York, Lea & Febiger. 1908.

The fourth volume of this work consists of three parts, dealing respectively with Diseases of the Circulatory System, Diseases of the Blood and Diseases of the Spleen, Thymus and Lymph Glands. From the pen of the distinguished editor we have the following chapters: Acute Endocarditis, Diseases of the Arteries and Aneurysm; also part of the chapter on Diseases of the Valves of the Heart, written conjointly with Alexander G. Gibson; the latter also contributes chapters on Hypertrophy of the Heart, and Insufficiency and Dilatation of the Heart. Among the other contributors to this latest volume we find Ch. F. Hoover, A. McPhedran, Robert H. Babcock, Maude E. Abbott, G. Blumer, Alfred Scott Warthin, Richard C. Cabot and I. P. Lyon.

The volume contains over 850 pages and in every respect preserves the high standard set by the preceding volumes of this remarkable work.

NERVOUS AND MENTAL DISEASES. FOR STUDENTS AND PRACTITIONERS. By Charles S. Potts, M. D., Professor of Neurology in the Medico-Chirurgical College of Philadelphia. New (second) edition, thoroughly revised and greatly enlarged. In one 12mo. volume of 570 pages, with 133 engravings and 9 full-page plates. Price, cloth, $2.50 net. Lea & Febiger, Publishers, Philadelphia and New York.

It is obvious that in a comparatively short manual these subjects cannot be discussed exhaustively. However, the author has treated them in a concise and lucid manner; has given the disease-pictures clearly and well defined; has made the diagnostic and differential-diagnostic points plain and convincing; and finally, has referred only to the really worthy therapeutic measures, omitting a great many customary but problematical ones. For all of these reasons, and not the least because of the fluent and choice diction, the perusal of the manual will afford the reader both pleasure and instruction. W. R.